

STATE OF
COLORADO

Eschberger - DNR, Amy <amy.eschberger@state.co.us>

Schwartzwalder Mine First Quarter 2021 Sampling Results

Evan Valencia <evalencia@ensero.com>

Tue, May 4, 2021 at 6:09 PM

To: Amy Eschberger <amy.eschberger@state.co.us>

Cc: Paul Newman <paul@coloradolegacy.land>, Eric Williams <eric@coloradolegacy.land>, Jim Harrington <jim@coloradolegacy.land>, Billy Ray <bray@ensero.com>, Elizabeth Busby <ebusby@ensero.com>, "eric.mink@state.co.us" <eric.mink@state.co.us>, Allan Steckelberg <asteckelberg@ensero.com>, "daniel.arnold@denverwater.org" <daniel.arnold@denverwater.org>, Evelyn Rhodes <erhodes@arvada.org>, "bwyant@arvada.org" <bwyant@arvada.org>

Dear Ms. Eschberger,

On behalf of Colorado Legacy Land, I am pleased to submit the 2021 First Quarter Sampling Results for the Former Schwartzwalder Mine located in Golden, Colorado. A hard copy has been sent to your office via overnight courier (FedEx Tracking No: 7867780055790). Due to the size of this deliverable, electronic copies of the report and lab reports are available for download from the following SharePoint link:

Link:  [DRMS-CLL_Shared_Folder](#)Password: **Expiration Date:** This link & password are active until June 3rd, 2021.

You can also access this link through the automatic SharePoint email that is sent when I share the folder with you. If you have any issues access this deliverable please contact me directly by phone or email, I am happy to help.

Best,

Evan Valencia, EIT

Environmental Engineer I



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May 4, 2021

Ms. Amy Eschberger
Colorado Division of Reclamation, Mining, and Safety
Department of Natural Resources
1313 Sherman Street, Room 215
Denver, CO 80203

Subject: First Quarter 2021 Sampling Results,
Schwartzwalder Mine, Golden Colorado,
Mine Land Reclamation Permit No. M-1977-300.

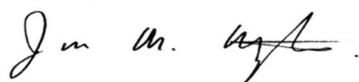
Dear Ms. Eschberger:

The first quarter sampling event at the Schwartzwalder Mine was conducted by Ensero Solutions US, Inc. (Ensero) field staff on January 27 to January 29, 2021. In addition to presenting sample data, CLL is including a cross-section schematic to illustrate the Schwartzwalder mine pool elevation with respect to the elevation of the Ralston Creek surface water sample locations. During the first quarter sampling event, all samples taken of Ralston Creek within the permit boundary were below the 30 µg/L. As shown in the attached schematic, given that the elevations of surface water location ARH (SW-ARH) and FBRG (SW-FBRG) were above the elevation of the mine pool at the time of sampling, the concentrations of uranium in Ralston Creek outside of the permit boundary at SW-ARH and SW-FBRG and the downstream locations, SW-LLHG and SW-WEIR, are not tied to the mine pool. In addition, the elevated water level in Monitoring Well 15 (MW-15) from fourth quarter 2020 shows a groundwater divide exists between the mine pool and Ralston Creek.

- **Surface Water Data:** There are thirteen quarterly surface water (SW) sampling locations. Figure 1 shows the location of each surface water sample locations along Ralston Creek. Table 2a summarizes surface water field parameters. Table 2b summarizes the analytical data results. The analytical laboratory data report and the chain of custody are attached to this report. A copy of the electronic data deliverable (EDD) excel file for these samples are included in this submittal.
- **Groundwater Data:** There are thirteen quarterly groundwater monitoring well (MW) locations. Table 1 shows the monitoring well elevations. Figure 2 shows the location of each MW. Table 3a summarizes groundwater field parameters. Table 3b summarizes the analytical data results. The analytical laboratory data report and the chain of custody are attached to this report. A copy of the EDD excel file for these samples are included in this submittal.
- **Mine Pool Elevations:** Table 4 summarizes the mine pool elevations for the quarter. Pumping of the mine pool has consistently maintained the mine pool elevation below the regulatory limit of 150 feet (ft) below the Steve Level even during months of no pumping. Maintaining the mine pool below the regulatory limit has established a hydraulic gradient away from Ralston Creek, preventing mine water from entering the creek in the permit area.

If you have any questions regarding this letter, please do not hesitate to contact me.

Sincerely,

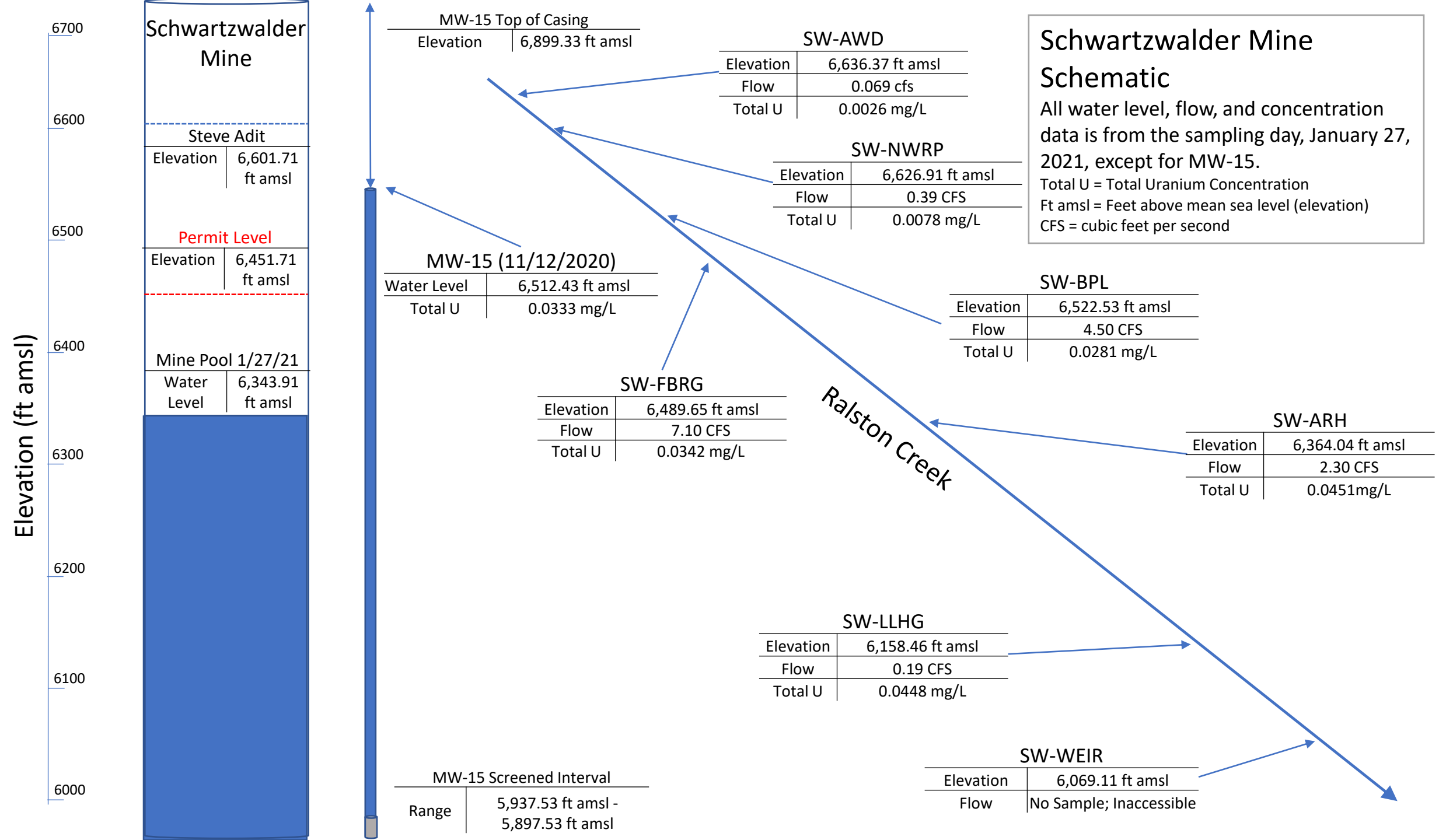


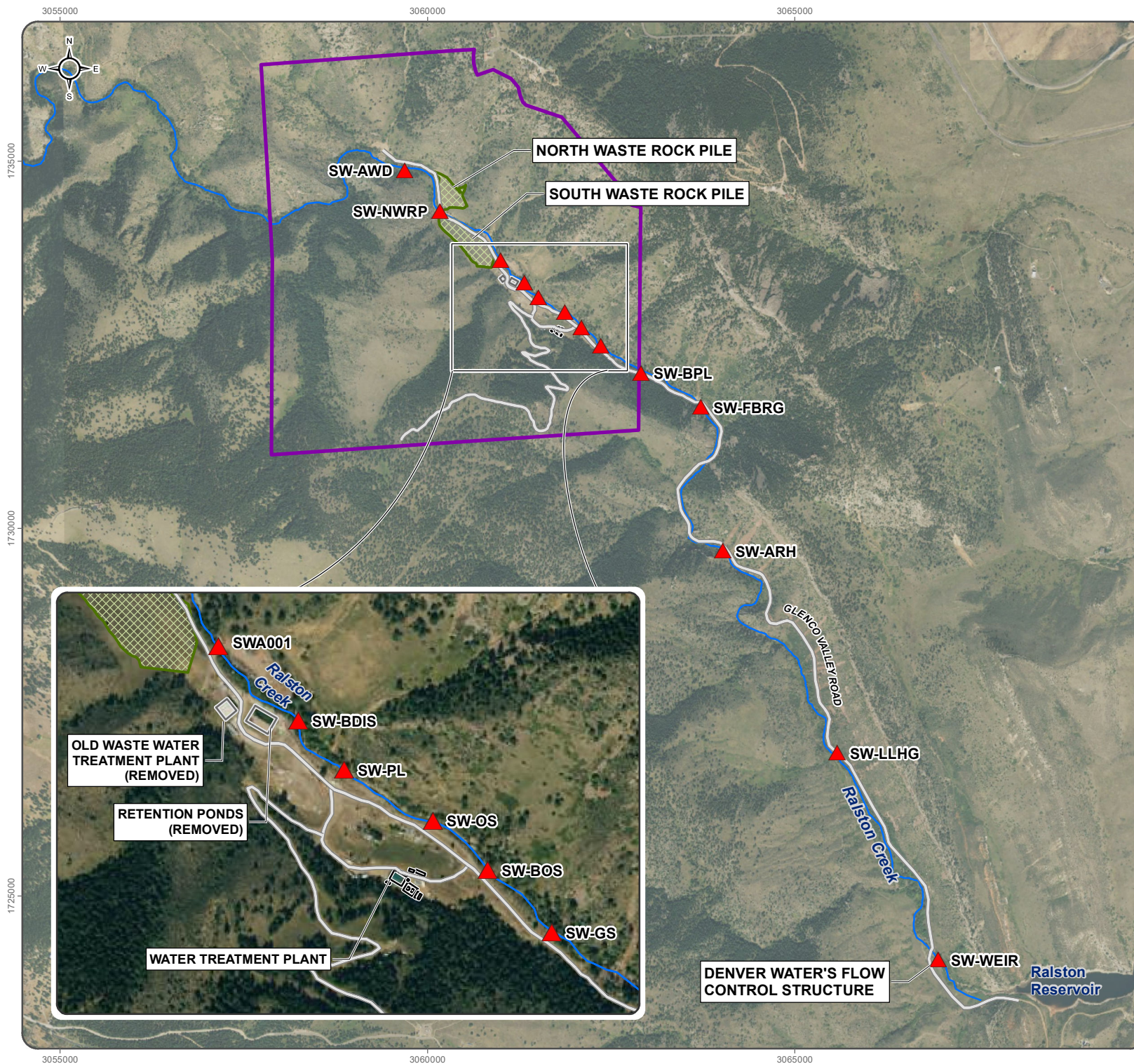
Jim Harrington, Managing Director

COLORADO LEGACY LAND

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Evelyn Rhodes – City of Arvada, Water Quality Administrator, erhodes@arvada.org
Brad Wyant – City of Arvada, Water Treatment Manager, bwyant@arvada.org





COLORADO LEGACY LAND SCHWARTZWALDER MINE

FIGURE 1

SURFACE WATER QUALITY MONITORING LOCATIONS

SEPTEMBER 2020



- ▲ Surface Water Quality Monitoring Station
- CLL Property Boundary
- Building, Existing
- Reclaimed Mine Feature
- Waste Rock Dump
- Road
- Watercourse

1:22,000 when printed on 8x11 inch paper

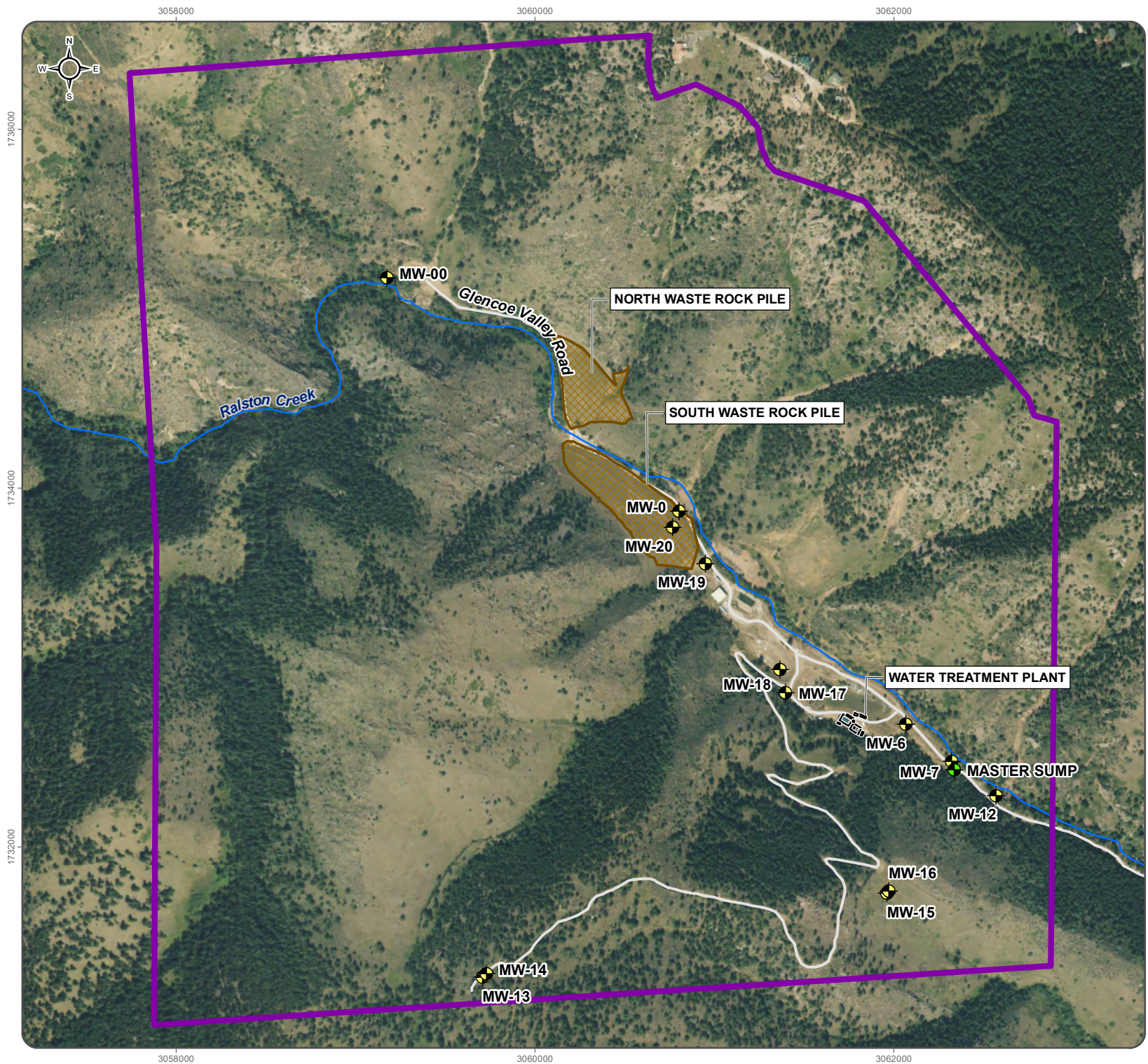
0 500 1,000 1,500 2,000 Feet



Satellite imagery obtained from ArcGIS on services.arcgis.com on September 2020

Datum: NAD 1983 (CORS96) StatePlane Colorado Central FIPS 0502 (US Feet)

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COLORADO LEGACY LAND SCHWARTZWALDER MINE

FIGURE 2
**GROUNDWATER MONITORING
LOCATIONS**

OCTOBER 2020



- GW Monitoring Well
- Pumpback Sump
- CLL Property Boundary
- Waste Rock Dump
- Existing Mine Feature Footprint
- Glencoe Valley Road
- Ralston Creek

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Satellite imagery obtained from ArcGIS on
services.arcgis.com on October 2020

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TABLE 1: GROUNDWATER SAMPLE LOCATIONS

Location ID / Sample ID	Installation Date	Northing (feet) ^{1,2}	Easting (feet) ^{1,2}	Ground Surface Elevation ¹ (ft amsl)	Casing Elevation ¹ (ft amsl)	Total Depth (ft bgs)	Well Construction Details	Screened Interval (ft bgs)	Notes
MW-00	10/29/1998	1,733,874.25	3,060,802.43	6,608.26	6,610.26	27.5	4-inch PVC, 0.03-in slot.	16.9-26.9	Screened interval interpreted from field boring log.
MW-0	Unknown, construction paper filed on 11/20/1992	1,735,174.35	3,059,175.16	6,666.64	6,667.64	23.0	2.5-inch PVC	15.0-20.0	No information exists for this boring log. Screened interval is taken from MW permit application. 15.0-20.0 is listed as the proposed screened interval.
MW-6	06/20/1989	1,732,682.94	3,062,066.36	6,556.52	6,557.67	15.0	2-in Sch 40 PVC, 0.03-in slot	5.0-15.0	
MW-7	06/20/1989	1,732,478.75	3,062,321.26	6,546.02	6,547.62	11.0	2-in Sch 40 PVC	5.0-10.0	
MW-12	November 2008 (According to EPP)	1,732,287.92	3,062,569.09	6,545.46	6,547.58	17.0	2-in PVC	12.0-17.0	Missing boring log and construction form. Was drilled to the be “downgradient alluvium compliance well”.
MW-13	09/06/2012	1,731,272.17	3,059,706.76	7,401.87	7,403.32	500.8	2-in Sch 40 PVC, 0.04-in slot	459.76-499.76	Nitrogen. Bladder pump in well.
MW-14	09/04/2012	1,731,293.55	3,059,730.06	7,401.32	7,402.39	154.3	2.375-in Sch 80 PVC, 0.02-in slot	134.34-154.34	Nitrogen. Bladder pump in well. Installed Dry.
MW-15	11/03/2012	1,731,742.41	3,061,962.60	6,897.53	6,899.33	1,007.13	3-in Sch 40 PVC, 0.04-in slot	960.0-1,000.0	Nitrogen. Bladder pump in well.
MW-16	10/19/2012	1,731,756.51	3,061,972.30	6,898.42	6,900.32	324.7	2.375-in Sch 80 PVC, 0.02-in slot	300.0-320.0	No pump in well. Installed dry.
MW-17	09/22/2012	1,732,861.21	3,061,398.57	6,600.86	6,602.57	119.0	2.375-in Sch 80 PVC, 0.02-in slot	95.0-115.0	Nitrogen.
MW-18	10/11/2012	1,732,989.50	3,061,365.66	6,575.34	6,576.88	239.9	2.375-in Sch 80 PVC, 0.02-in slot	215.0-235.0	
MW-19	09/28/2012	1,733,579.59	3,060,949.50	6,603.93	6,606.07	21.6	2.375-in Sch 80 PVC, 0.02-in slot	10.0-20.0	
MW-20	11/06/2012	1,733,782.66	3,060,767.07	6,645.28	6,647.37	50.0	2.375-in Sch 80 PVC, 0.02-in slot	40.0-50.0	Installed dry.
Raw Feed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Spigot – inside water treatment plant. Mine pool water influent to Water Treatment Plant. Raw Feed use to be called “Mine Refill”.
Sumps (Master Sump)	10/08/2010	1,732,431.06	3,062,337.59	6,544.66	6,547.21	6.0	N/A	N/A	Sample collected from Master Sump, commissioned 10/2020, previously Sump 1.

Citation:
¹ Locations surveyed by Lambert Land Consulting on 7/23/2020.

Notes:
² Coordinates: NAD 1983. Colorado State Plane Colorado Central (Feet).

N/A = not applicable

amsl = above mean sea level

bgs = below ground surface

ft = feet

in= inch

TABLE 2A. SURFACE WATER SAMPLE FIELD PARAMETERS

Location ID / Sample ID	Elevation ¹ (ft above mean sea level)	Sample Date	Field Parameters						Notes / Location Description
			Flowrate (ft ³ /s)	pH (unitless)	Temperature (°C)	Conductivity (µS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	
SW-AWD	6,636.37	01/27/2021	0.069	7.57	0.3	229.0	112.7	10.72	Upstream sample location. Above waste dump (AWD). Onsite.
SW-NWRP	6,626.91	01/27/2021	0.39	7.52	2.0	245.9	26.9	8.90	Downstream of the North Waster Rock Pile (NWRP).
SW-A001	6,603.98	Not Sampled ²	--	--	--	--	--	--	Above former discharge point. Onsite. Directly below the west waste rock pile.
SW-BDIS	6,592.67	Not Sampled ²	--	--	--	--	--	--	Below former discharge (BDIS). Onsite. Below former concrete containment structure.
SW-PL	6,583.53	Not Sampled ²	--	--	--	--	--	--	Former parking lot (PL) location. Onsite.
SW-OS	6,562.51	Not Sampled ²	--	--	--	--	--	--	Former ore sorter (OS) location. Onsite.
SW-BOS	6,556.19	Not Sampled ²	--	--	--	--	--	--	Below former ore sorter (BOS) location. Onsite.
SW-GS	6,545.54	Not Sampled ²	--	--	--	--	--	--	Former guard shack (GS) location. Onsite.
SW-BPL	6,522.53	01/27/2021	4.50	7.78	1.7	244.8	133.0	10.94	Below property line (BPL). Downstream sample location, just below entrance gate. Offsite.
SW-FBRG	6,489.65	01/27/2021	7.10	7.92	-0.1	236.0	124.0	12.07	First bridge (FBRG) after leaving site. Offsite.
SW-ARH	6,364.04	01/27/2021	2.30	7.79	0.0	286.9	46.2	12.04	Above red hill (ARH). Near the large red boulders in the creek bed. Offsite.
SW-LLHG	6,158.46	01/27/2021	0.19	7.02	0.2	294.7	127	11.78	Long lake head gate (LLHG). Just above head gate. Offsite.
SW-WEIR	6,069.11	Not Sampled ³	--	--	--	--	--	--	Weir structure before Ralston Reservoir Offsite.

Citation:¹ Locations surveyed by Lambert Land Consulting on 7/23/2020.**Notes:**² Location was dry.³ Location was not accessible due to ice.

µS/cm = microSiemens per centimeter

°C = degrees Celsius

ft³/s= cubic feet per second

kg / day = kilogram per day

mg/L = milligrams per liter

mV =millivolts

ORP = Oxidization Reduction Potential

TABLE 2B: SUMMARY OF SURFACE WATER ANALYTICAL DATA

Parameter	Units	Surface Water Quality Standards Segment 17b, Ralston Creek (CDPHE 2019) ¹		Sample Location					
				SW-AWD	SW-NWRP	SW-BPL	SW-FBRG	SW-ARH	SW-LLHG
		Acute	Chronic	01/27/2021	01/27/2021	01/27/2021	01/27/2021	01/27/2021	01/27/2021
Physical Properties									
TDS - Total Dissolved Solids	mg/L	-	-	254	246	252	242	310	314
TSS - Total Suspended Solids	mg/L	-	-	<5	<5	<5	<5	<5	<5
Major Ions									
Alkalinity as CaCO ₃	mg/L	-	-	60	59	63	64	90	92
Bicarbonate as CaCO ₃	mg/L	-	-	60	59	63	64	90	92
Calcium - Dissolved	mg/L	-	-	42.6	43.0	44.4	45.3	47.9	45.3
Carbonate as CaCO ₃	mg/L	-	-	<2	<2	<2	<2	<2	<2
Chloride	mg/L	-	250	64.5	63.8	62.4	63.0	59.5	56.1
Fluoride	mg/L	-	-	0.30 B	0.28 B	0.24 B	0.24 B	0.35 B	0.33 B
Hydroxide as CaCO ₃	mg/L	-	-	<2	<2	<2	<2	<2	<2
Magnesium - Dissolved	mg/L	-	-	12.0	12.6	13.6	14.1	15.9	14.8
Potassium - Dissolved	mg/L	-	-	1.58	1.91	2.06	2.08	2.62	2.49
Sodium - Dissolved	mg/L	-	-	20.8	19.8	19.4	20.1	41.4	39.7
Sulfate	mg/L	-	250	40.3	42.4	46.5	47.7	79.9	81.5
Nutrients									
Cyanide - Weak Acid Dissociable	mg/L	0.005	-	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Nitrate+Nitrite as N	mg/L	NO ₃ =10	NO ₂ =0.05	0.034 B	<0.02	0.025 B	<0.02	<0.02	<0.02
Phosphate - Total	mg/L	-	-	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Phosphorus - Total	mg/L	-	0.11	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Metals-Dissolved									
Aluminum	mg/L	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Antimony	mg/L	-	-	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Arsenic	mg/L	0.34	-	0.00036 B	<0.0002	<0.0002	<0.0002	0.00037 B	0.00027 B
Boron	mg/L	-	0.75	<0.02	<0.02	<0.02	<0.02	0.042 B	0.048 B
Chromium	mg/L	-	Chromium III=0.11	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		Chromium IV = 0.016	Chromium IV = 0.011						
Copper	mg/L	0.0213	0.0136	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron	mg/L	-	0.3	<0.06	0.246	<0.06	<0.06	<0.06	<0.06
Lead	mg/L	0.109	0.0043	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Manganese	mg/L	3.51	1.94	<0.01	0.025 B	0.013 B	<0.01	0.037 B	<0.01
Mercury	mg/L	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	mg/L	-	-	0.0005	0.0011	0.0025	0.0029	0.0064	0.0072
Silver	mg/L	0.0047	0.00017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Thallium	mg/L	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Uranium	mg/L	-	-	0.0030	0.0088	0.0260	0.0322	0.0422	0.0437
Zinc	mg/L	0.249	0.188	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Metals-Total									
Aluminum	mg/L	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Antimony	mg/L	-	-	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Arsenic	mg/L	-	0.00002	<0.0002	<0.0002	0.00021 B	<0.0002	0.00029 B	0.0002 B
Boron	mg/L	-	0.75	<0.02	<0.02	<0.02	<0.02	0.028 B	0.032 B
Chromium	mg/L	Chromium III = 0.005	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		Chromium IV = 0.016	Chromium IV = 0.011						

TABLE 2B: SUMMARY OF SURFACE WATER ANALYTICAL DATA

Parameter	Units	Surface Water Quality Standards Segment 17b, Ralston Creek (CDPHE 2019) ¹		Sample Location					
				SW-AWD	SW-NWRP	SW-BPL	SW-FBRG	SW-ARH	SW-LLHG
		Acute	Chronic	01/27/2021	01/27/2021	01/27/2021	01/27/2021	01/27/2021	01/27/2021
Copper	mg/L	0.0213	0.0136	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron	mg/L	-	1	<0.06	0.278	0.073 B	0.061 B	<0.06	<0.06
Lead	mg/L	0.05	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Manganese	mg/L	0.05	-	<0.01	0.019 B	<0.01	<0.01	0.025 B	<0.01
Mercury	mg/L	3.513	1.941	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	mg/L	-	0.15	0.00034 B	0.00097	0.00227	0.00273	0.00620	0.00729
Silver	mg/L	0.0047	0.00017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Thallium	mg/L	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Uranium	mg/L	-	-	0.0026	0.0078	0.0281	0.0342	0.0451	0.0448
Zinc	mg/L	0.249	0.188	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Radionuclides									
Gross Alpha	pCi/L	-	-	2.8	4.7	13	20	34	33
Gross Beta	pCi/L	-	-	5.9	3.9	9.5	7.8	16	13
Radium 226 - Dissolved	pCi/L	-	-	0.29	0.30	0.40	0.62	0.67	0.57
Radium 226 - Total	pCi/L	-	-	0.25	0.28	0.35	0.39	0.75	0.71
Radium 228 - Total	pCi/L	-	-	0.37	-0.23	0.37	0.14	0.03	-0.36
Radium 226 + Radium 228 - Total	pCi/L	-	-	0.25	0.28	0.35	0.39	0.75	0.71

Notes:

¹ Acute and chronic standards for cadmium, chromium III, copper, lead, manganese, nickel, silver, uranium and zinc are calculated using an average hardness value of 163 mg/L as CaCO₃.

Bold and grey-shaded analytical results are greater than one or more criteria.

B = Estimated concentration

NO₃= Nitrate

NO₂= Nitrite

CaCO₃= Calcium Carbonate

mg/L= milligrams per Liter

pCi/L= picocuries per Liter

Chromium III = Trivalent Chromium

Chromium IV = Tetravalent Chromium

Source:

CDPHE. 2019. Regulation No. 38 Stream Classification and Water Quality Standards, Clear Creek Basin, Segment 17b. Mainstem of Ralston Creek Including all Tributaries and Wetlands from the Source to the Inlet of Arvada Reservoir. June

TABLE 3A: GROUNDWATER SAMPLE FIELD PARAMETERS

Location ID / Sample ID ⁴	Sample Date	Field Parameters						Notes / Location Description
		Static Depth to Water (ft btoc)	pH (unitless)	Temperature (°C)	Conductivity (µS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	
MW-00	01/29/2021	8.31	6.60	5.5	282.3	196.0	7.19	Alluvial well. Above waste dumps, upstream of site.
MW-0	01/29/2021	14.17	6.66	9.6	600.0	197.7	3.58	Alluvial well. Toe of south waste rock pile.
MW-6	Not Sampled ¹	--	--	--	--	--	--	Alluvial well. Near former Sump #2.
MW-7	01/29/2021	11.54	7.23	7.2	786.0	182.2	4.79	Alluvial well. Near Sump #1. This sample was a grab sample was taken 24 hours after the first attempt to sample during which the well ran dry while purging.
MW-12	Not Sampled ¹	--	--	--	--	--	--	Below Sump #1. Alluvial well.
MW-13	Not Sampled ²	--	--	--	--	--	--	Nitrogen purge. Replaced MW-10. Previous Sample ID = L1. Background well.
MW-14	Not Sampled ²	--	--	--	--	--	--	Nitrogen purge. Replaced MW-11. Previous Sample ID = L2. Background well.
MW-15	Not Sampled ²	--	--	--	--	--	--	Nitrogen purge. Previous Sample ID = L3. Bedrock well.
MW-16	Not Sampled ²	--	--	--	--	--	--	Previous Sample ID = L4. Bedrock well.
MW-17	Not Sampled ¹	--	--	--	--	--	--	Nitrogen purge. Previous Sample ID = L5.
MW-18	01/28/2021	215.0	7.22	10.6	764.0	-55.6	1.81	Previous Sample ID = L6. Bedrock well, installation targeted Illinois fault zone in alluvial valley.
MW-19	01/29/2021	19.08	6.81	11.3	615.0	161.8	3.84	Toe of south waste rock pile. Previous Sample ID = L7.
MW-20	Not Sampled ¹	--	--	--	--	--	--	Usually dry. Top of south waste rock pile.
Raw Feed	Not Sampled ³	--	--	--	--	--	--	Sample collected from spigot inside water treatment plant. This is the water treatment plant intake from the mine pool. Previous Sample ID = Mine Refill.
Sumps	Not Sampled ¹	--	--	--	--	--	--	Sample collected from sump water from Sump #1 (Master Sump).

Notes:
¹Water present in well was dry or insufficient volume to collect sample.

²Well was not accessible.

³Raw Feed was unable to be sampled due to the planned, seasonal shutdown of the water treatment plant.

⁴MW-1, MW-2, MW-3A, and MW-8 were removed in 2019; MW-4 and MW-5 were removed in 2008. MW-8 was replaced with MW-12. MW-10 and MW-11 were fouled (bentonite in screened interval) and replaced with MW-13 and MW-14.

µS/cm = microSemiens per centimeter

°C = degrees Celsius

ft btoc = feet below top of casing

ID = Identifier

mg/L = milligrams per liter

mV =millivolts

MW = Monitoring Well

ORP = Oxidization Reduction Potential

TABLE 3B: SUMMARY OF GROUND WATER ANALYTICAL DATA

TABLE 3B: SUMMARY OF GROUND WATER ANALYTICAL DATA							
Parameter	Units	Domestic Water Supply - Drinking Water Standards (CDPHE 2018)	Sample Location				
			MW-00	MW-0	MW-7	MW-18	MW-19
			01/29/2021	01/29/2021	01/29/2021	01/28/2021	01/29/2021
Physical Properties							
TDS - Total Dissolved Solids	mg/L	-	250	568	854	744	528
TSS - Total Suspended Solids	mg/L	-	<5	<5	18 B	<5	<5
Major Ions							
Alkalinity as CaCO ₃	mg/L	-	70.5	147	239	189	203
Bicarbonate as CaCO ₃	mg/L	-	70.5	147	239	189	203
Calcium - Dissolved	mg/L	-	43.2	94.6	121	103	61.7
Carbonate as CaCO ₃	mg/L	-	<2	<2	<2	6.7	<2
Chloride	mg/L	250	65.0	23.4	18.9	19.3	7.2
Fluoride	mg/L	4.0	0.25 B	0.27 B	0.44	0.46	0.45
Hydroxide as CaCO ₃	mg/L	-	<2	<2	<2	<2	<2
Magnesium - Dissolved	mg/L	-	12.7	33.5	48.7	38.1	40.4
Potassium - Dissolved	mg/L	-	1.68	3.71	5.31	6.18	3.82
Sodium - Dissolved	mg/L	-	17.6	27.8	57.9	79.3	47.1
Sulfate	mg/L	250	37.8	232	377	336	198
Nutrients							
Cyanide - Weak Acid Dissociable	mg/L	0.2	<0.006	<0.003	<0.003	<0.003	<0.003
Nitrate+Nitrite as N	mg/L	10.0	0.027 B	2.48	0.682	0.084 B	1.2
Phosphate - Total	mg/L	-	<0.03	<0.03	0.14 B	12.7	<0.03
Phosphorus - Total	mg/L	-	<0.01	<0.01	0.045 B	1.68	<0.01
Metals-Dissolved							
Aluminum	mg/L	5.0	<0.05	<0.05	<0.05	<0.05	<0.05
Antimony	mg/L	0.006	<0.0004	<0.0004	0.00091 B	<0.0004	<0.0004
Arsenic	mg/L	0.01	<0.0002	<0.0002	<0.0002	0.00132	<0.0002
Boron	mg/L	0.75	<0.02	0.042 B	0.07 B	0.112	0.068 B
Chromium	mg/L	0.1	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	mg/L	1.0	<0.01	<0.01	<0.01	0.011 B	<0.01
Iron	mg/L	0.3	<0.06	<0.06	<0.06	<0.06	<0.06
Lead	mg/L	0.1	<0.0001	<0.0001	0.00032 B	<0.0001	<0.0001
Manganese	mg/L	0.05	<0.01	<0.01	0.012 B	0.078	<0.01
Mercury	mg/L	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	mg/L	0.21	0.00036 B	0.0155	0.0388	0.0455	0.0332
Silver	mg/L	0.05	<0.0001	<0.0002	<0.0001	<0.0001	<0.0001
Thallium	mg/L	0.002	<0.0001	<0.0001	<0.0001	0.00015 B	<0.0001
Uranium	mg/L	0.03	0.00173	0.61	1.64	0.653	0.966
Zinc	mg/L	5.0	<0.02	<0.02	<0.02	<0.02	<0.02
Metals-Total							
Aluminum	mg/L	5.0	<0.05	<0.05	2.04	0.336	<0.05
Antimony	mg/L	0.006	<0.0004	<0.0004	0.00045 B	<0.0004	<0.0004
Arsenic	mg/L	0.01	<0.0002	<0.0004	0.00112	0.00127	<0.0002
Boron	mg/L	0.75	<0.02	0.023 B	0.055 B	0.098 B	0.054 B
Chromium	mg/L	0.1	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	mg/L	1.0	<0.01	<0.01	<0.01	<0.01	<0.01
Iron	mg/L	0.3	0.08 B	<0.06	2.77	0.494	<0.06
Lead	mg/L	0.05	0.00022 B	0.00038 B	0.00305	0.00056	<0.0001

TABLE 3B: SUMMARY OF GROUND WATER ANALYTICAL DATA

Parameter	Units	Domestic Water Supply - Drinking Water Standards (CDPHE 2018)	Sample Location				
			MW-00	MW-0	MW-7	MW-18	MW-19
			01/29/2021	01/29/2021	01/29/2021	01/28/2021	01/29/2021
Manganese	mg/L	0.05	<0.01	<0.01	0.121	0.077	<0.01
Mercury	mg/L	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	mg/L	0.21	0.0004 B	0.016	0.0386	0.0465	0.0335
Silver	mg/L	0.05	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Thallium	mg/L	0.002	<0.0001	<0.0001	<0.0001	0.00012 B	<0.0001
Uranium	mg/L	0.03	0.00172	0.619	1.55	0.657	0.949
Zinc	mg/L	5.0	<0.02	<0.02	<0.02	<0.02	<0.02
Radionuclides							
Gross Alpha	pCi/L	15	4.9	370	920	420	460
Gross Beta	pCi/L	-	5.5	150	400	170	210
Radium 226 - Dissolved	pCi/L	-	0.27	0.18	0.64	4	0.7
Radium 226 - Total	pCi/L	-	0.18	-0.02	6.3	6.2	0.58
Radium 228 - Total	pCi/L	-	0.77	0.44	2.9	6.5	1.5
Radium 226 + Radium 228 - Total	pCi/L	5.0	0.18	0	6.3	13	0.58

Notes:

Bold and grey shaded analytical results are greater than the criteria.

B = Estimated concentration

CaCO₃= Calcium Carbonate

mg/L= milligrams per Liter

pCi/L= picocuries per Liter

Chromium III = Trivalent Chromium

Chromium IV = Tetravalent Chromium

NO₂= Nitrite

NO₃= Nitrate

N/A= Standard not Defined

Source:

CDPHE. 2018. Regulation No. 41 – The Basic Standards for Ground Water (5 CCR 1002-41). Water Quality Control Commission. December.

TABLE 4: DAILY AVERAGE MINE POOL ELEVATIONS		
Date	Distance Below Steve Level (feet)	Elevation of Water Level (feet above mean sea level)
1/1/2021	279.68	6,322.03
1/2/2021	278.91	6,322.80
1/3/2021	278.17	6,323.54
1/4/2021	277.37	6,324.34
1/5/2021	276.73	6,324.98
1/6/2021	275.57	6,326.14
1/7/2021	274.92	6,326.79
1/8/2021	274.21	6,327.50
1/9/2021	273.28	6,328.43
1/10/2021	272.44	6,329.27
1/11/2021	271.85	6,329.86
1/12/2021	271.17	6,330.54
1/13/2021	270.38	6,331.33
1/14/2021	269.28	6,332.43
1/15/2021	268.60	6,333.11
1/16/2021	267.63	6,334.08
1/17/2021	266.90	6,334.81
1/18/2021	266.23	6,335.48
1/19/2021	264.94	6,336.77
1/20/2021	264.18	6,337.54
1/21/2021	263.60	6,338.11
1/22/2021	262.74	6,338.97
1/23/2021	261.79	6,339.92
1/24/2021	260.79	6,340.92
1/25/2021	259.86	6,341.85
1/26/2021	258.91	6,342.80
1/27/2021	257.80	6,343.91
1/28/2021	256.61	6,345.10
1/29/2021	255.67	6,346.04
1/30/2021	254.64	6,347.07
1/31/2021	253.41	6,348.30
2/1/2021	252.77	6,348.94
2/2/2021	252.15	6,349.56
2/3/2021	251.77	6,349.94
2/4/2021	251.09	6,350.62
2/5/2021	250.58	6,351.13
2/6/2021	250.15	6,351.56
2/7/2021	249.87	6,351.84
2/8/2021	249.28	6,352.43
2/9/2021	248.72	6,352.99

TABLE 4: DAILY AVERAGE MINE POOL ELEVATIONS		
Date	Distance Below Steve Level (feet)	Elevation of Water Level (feet above mean sea level)
2/10/2021	248.28	6,353.43
2/11/2021	247.91	6,353.80
2/12/2021	247.60	6,354.11
2/13/2021	247.21	6,354.50
2/14/2021	246.84	6,354.87
2/15/2021	246.69	6,355.02
2/16/2021	246.49	6,355.22
2/17/2021	245.89	6,355.82
2/18/2021	245.58	6,356.13
2/19/2021	245.33	6,356.38
2/20/2021	245.04	6,356.67
2/21/2021	244.27	6,357.44
2/22/2021	243.71	6,358.00
2/23/2021	243.44	6,358.27
2/24/2021	242.84	6,358.87
2/25/2021	242.34	6,359.37
2/26/2021	242.00	6,359.71
2/27/2021	241.35	6,360.36
2/28/2021	240.39	6,361.32
3/1/2021	239.76	6,361.95
3/2/2021	239.33	6,362.38
3/3/2021	238.54	6,363.17
3/4/2021	237.88	6,363.83
3/5/2021	237.07	6,364.64
3/6/2021	236.61	6,365.10
3/7/2021	235.76	6,365.95
3/8/2021	234.99	6,366.72
3/9/2021	234.43	6,367.29
3/10/2021	233.96	6,367.75
3/11/2021	233.07	6,368.64
3/12/2021	232.21	6,369.50
3/13/2021	231.77	6,369.94
3/14/2021	231.36	6,370.35
3/15/2021	230.72	6,370.99
3/16/2021	230.08	6,371.63
3/17/2021	229.19	6,372.52
3/18/2021	228.51	6,373.20
3/19/2021	227.77	6,373.94
3/20/2021	227.30	6,374.41
3/21/2021	226.62	6,375.09

TABLE 4: DAILY AVERAGE MINE POOL ELEVATIONS		
Date	Distance Below Steve Level (feet)	Elevation of Water Level (feet above mean sea level)
3/22/2021	226.12	6,375.59
3/23/2021	225.65	6,376.06
3/24/2021	224.89	6,376.82
3/25/2021	224.44	6,377.27
3/26/2021	223.90	6,377.81
3/27/2021	223.05	6,378.66
3/28/2021	222.55	6,379.16
3/29/2021	222.34	6,379.37
3/30/2021	221.42	6,380.29
3/31/2021	220.58	6,381.13

Notes:

The elevation of the Steve Adit is 6601.71 feet above mean sea level. This was surveyed by Lambert Land Consulting on 7/23/2020.

February 25, 2021

Report to:

Braden Richards
Ensero Solutions
104-411 Downey Rd
Saskatoon, CANADA

Bill to:

Lori Simpson
Ensero Solutions
131 E. Lincoln Ave Ste. 200
Fort Collins, CO 80524

cc: Ensero/Alexco Importer, Evan Valencia

Project ID: 3100-PO205

ACZ Project ID: L64002

Braden Richards:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on February 02, 2021. This project has been assigned to ACZ's project number, L64002. Please reference this number in all future inquiries.

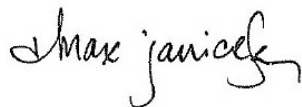
All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L64002. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after March 27, 2021. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.



Max Janicek has reviewed and
approved this report.



Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-00

ACZ Sample ID: **L64002-01**

Date Sampled: 01/29/21 11:21

Date Received: 02/02/21

Sample Matrix: *Groundwater*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-		*				02/09/21 11:43	bjp/wtc
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								02/16/21 18:55	bjp
Total Hot Plate Digestion	M200.2 ICP-MS								02/15/21 9:50	mfm
Total Hot Plate Digestion	M200.2 ICP								02/04/21 17:46	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-00

ACZ Sample ID: **L64002-01**

Date Sampled: 01/29/21 11:21

Date Received: 02/02/21

Sample Matrix: Groundwater

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/09/21 11:31	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/06/21 1:53	jlw
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/15/21 14:45	mfm
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/16/21 11:07	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	02/15/21 14:45	mfm
Arsenic, total	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	02/16/21 11:07	mfm
Boron, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	02/08/21 13:57	kja
Boron, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	02/08/21 12:11	jlw
Calcium, dissolved	M200.7 ICP	1	43.2			mg/L	0.1	0.5	02/08/21 13:57	kja
Chromium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 13:57	kja
Chromium, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 15:30	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 13:57	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/06/21 1:53	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	02/09/21 11:31	kja
Iron, total	M200.7 ICP	1	0.080	B		mg/L	0.06	0.15	02/06/21 1:53	jlw
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/15/21 14:45	mfm
Lead, total	M200.8 ICP-MS	1	0.00022	B		mg/L	0.0001	0.0005	02/16/21 11:07	mfm
Magnesium, dissolved	M200.7 ICP	1	12.7			mg/L	0.2	1	02/08/21 13:57	kja
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/09/21 11:31	kja
Manganese, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/06/21 1:53	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/11/21 10:44	llr
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/09/21 13:39	llr
Molybdenum, dissolved	M200.8 ICP-MS	1	0.00036	B		mg/L	0.0002	0.0005	02/15/21 14:45	mfm
Molybdenum, total	M200.8 ICP-MS	2	0.00040	B	*	mg/L	0.0004	0.001	02/17/21 15:45	mfm
Potassium, dissolved	M200.7 ICP	1	1.68			mg/L	0.2	1	02/08/21 13:57	kja
Selenium, dissolved	M200.8 ICP-MS	1	0.00032			mg/L	0.0001	0.00025	02/15/21 14:45	mfm
Selenium, total	M200.8 ICP-MS	1	0.00027			mg/L	0.0001	0.00025	02/16/21 11:07	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/15/21 14:45	mfm
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/16/21 11:07	mfm
Sodium, dissolved	M200.7 ICP	1	17.6			mg/L	0.2	1	02/08/21 13:57	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/15/21 14:45	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/16/21 11:07	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.00173			mg/L	0.0001	0.0005	02/15/21 14:45	mfm
Uranium, total	M200.8 ICP-MS	1	0.00172			mg/L	0.0001	0.0005	02/16/21 11:07	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/08/21 13:57	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/06/21 1:53	jlw

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-00

ACZ Sample ID: **L64002-01**

Date Sampled: 01/29/21 11:21

Date Received: 02/02/21

Sample Matrix: Groundwater

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	70.5			mg/L	2	20	02/05/21 0:00	eep
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	02/05/21 0:00	eep
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	02/05/21 0:00	eep
Total Alkalinity		1	70.5			mg/L	2	20	02/05/21 0:00	eep
Cation-Anion Balance	Calculation									
Cation-Anion Balance			0.0			%			02/25/21 0:00	calc
Sum of Anions			4.0			meq/L			02/25/21 0:00	calc
Sum of Cations			4.0			meq/L			02/25/21 0:00	calc
Chloride	SM4500Cl-E	1	65.0		*	mg/L	0.5	2	02/09/21 12:30	ttg
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	1	<0.006	U	*	mg/L	0.006	0.02	02/12/21 11:51	syw/bjp
Fluoride	SM4500F-C	1	0.25	B		mg/L	0.11	0.35	02/17/21 14:02	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	0.027	B		mg/L	0.02	0.1	02/17/21 22:03	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	02/25/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	02/17/21 21:45	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	250			mg/L	20	40	02/02/21 16:14	jck
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	02/03/21 12:46	scd
Sulfate	D516-02/-07/-11 - Turbidimetric	5	37.8		*	mg/L	5	25	02/04/21 16:18	ttg
TDS (calculated)	Calculation		221			mg/L			02/25/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.13						02/25/21 0:00	calc

Ensero Solutions

Project ID: 3100-PO205
 Sample ID: MW-0

ACZ Sample ID: **L64002-02**
 Date Sampled: 01/29/21 12:58
 Date Received: 02/02/21
 Sample Matrix: Groundwater

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						02/09/21 12:09	bjp/wtc
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								02/16/21 19:03	bjp
Total Hot Plate Digestion	M200.2 ICP-MS								02/15/21 9:50	mfm
Total Hot Plate Digestion	M200.2 ICP								02/04/21 17:58	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-0

ACZ Sample ID: **L64002-02**

Date Sampled: 01/29/21 12:58

Date Received: 02/02/21

Sample Matrix: Groundwater

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/09/21 11:34	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/06/21 1:56	jlw
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/15/21 14:46	mfm
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/16/21 11:09	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	02/15/21 14:46	mfm
Arsenic, total	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	02/16/21 11:09	mfm
Boron, dissolved	M200.7 ICP	1	0.042	B		mg/L	0.02	0.1	02/08/21 14:00	kja
Boron, total	M200.7 ICP	1	0.023	B		mg/L	0.02	0.1	02/08/21 12:14	jlw
Calcium, dissolved	M200.7 ICP	1	94.6			mg/L	0.1	0.5	02/08/21 14:00	kja
Chromium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 14:00	kja
Chromium, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 15:33	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 14:00	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/06/21 1:56	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	02/09/21 11:34	kja
Iron, total	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	02/06/21 1:56	jlw
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/15/21 14:46	mfm
Lead, total	M200.8 ICP-MS	1	0.00038	B		mg/L	0.0001	0.0005	02/16/21 11:09	mfm
Magnesium, dissolved	M200.7 ICP	1	33.5			mg/L	0.2	1	02/08/21 14:00	kja
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/09/21 11:34	kja
Manganese, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/06/21 1:56	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/11/21 10:47	llr
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/09/21 13:40	llr
Molybdenum, dissolved	M200.8 ICP-MS	1	0.0155			mg/L	0.0002	0.0005	02/15/21 14:46	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.0160			mg/L	0.0002	0.0005	02/17/21 15:47	mfm
Potassium, dissolved	M200.7 ICP	1	3.71			mg/L	0.2	1	02/08/21 14:00	kja
Selenium, dissolved	M200.8 ICP-MS	1	0.00096			mg/L	0.0001	0.00025	02/15/21 14:46	mfm
Selenium, total	M200.8 ICP-MS	1	0.00098			mg/L	0.0001	0.00025	02/16/21 11:09	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/15/21 14:46	mfm
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/16/21 11:09	mfm
Sodium, dissolved	M200.7 ICP	1	27.8			mg/L	0.2	1	02/08/21 14:00	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/15/21 14:46	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/16/21 11:09	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.610			mg/L	0.0001	0.0005	02/15/21 14:46	mfm
Uranium, total	M200.8 ICP-MS	1	0.619			mg/L	0.0001	0.0005	02/16/21 11:09	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/08/21 14:00	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/06/21 1:56	jlw

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-0

ACZ Sample ID: **L64002-02**

Date Sampled: 01/29/21 12:58

Date Received: 02/02/21

Sample Matrix: Groundwater

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	147			mg/L	2	20	02/05/21 0:00	eep
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	02/05/21 0:00	eep
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	02/05/21 0:00	eep
Total Alkalinity		1	147			mg/L	2	20	02/05/21 0:00	eep
Cation-Anion Balance	Calculation									
Cation-Anion Balance			1.7			%			02/25/21 0:00	calc
Sum of Anions			8.5			meq/L			02/25/21 0:00	calc
Sum of Cations			8.8			meq/L			02/25/21 0:00	calc
Chloride	SM4500Cl-E	1	23.4			mg/L	0.5	2	02/18/21 21:00	syw
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	02/12/21 11:53	syw/bjp
Fluoride	SM4500F-C	1	0.27	B		mg/L	0.11	0.35	02/17/21 14:07	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	2.48			mg/L	0.02	0.1	02/17/21 22:05	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	02/25/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	02/17/21 21:46	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	568			mg/L	20	40	02/02/21 16:17	jck
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	02/03/21 12:50	scd
Sulfate	D516-02/-07/-11 - Turbidimetric	20	232		*	mg/L	20	100	02/04/21 16:28	ttg
TDS (calculated)	Calculation		505			mg/L			02/25/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.12						02/25/21 0:00	calc

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-19

ACZ Sample ID: **L64002-03**

Date Sampled: 01/29/21 15:24

Date Received: 02/02/21

Sample Matrix: Groundwater

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						02/09/21 12:34	bjp/wtc
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								02/16/21 19:18	bjp
Total Hot Plate Digestion	M200.2 ICP-MS								02/15/21 9:50	mfm
Total Hot Plate Digestion	M200.2 ICP								02/04/21 18:09	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-19

ACZ Sample ID: **L64002-03**

Date Sampled: 01/29/21 15:24

Date Received: 02/02/21

Sample Matrix: Groundwater

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/09/21 11:43	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/06/21 1:59	jlw
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/15/21 14:48	mfm
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/16/21 11:11	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	02/15/21 14:48	mfm
Arsenic, total	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	02/16/21 11:11	mfm
Boron, dissolved	M200.7 ICP	1	0.068	B		mg/L	0.02	0.1	02/08/21 14:04	kja
Boron, total	M200.7 ICP	1	0.054	B		mg/L	0.02	0.1	02/08/21 12:17	jlw
Calcium, dissolved	M200.7 ICP	1	61.7			mg/L	0.1	0.5	02/08/21 14:04	kja
Chromium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 14:04	kja
Chromium, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 15:36	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 14:04	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/06/21 1:59	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	02/09/21 11:43	kja
Iron, total	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	02/06/21 1:59	jlw
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/15/21 14:48	mfm
Lead, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/16/21 11:11	mfm
Magnesium, dissolved	M200.7 ICP	1	40.4			mg/L	0.2	1	02/08/21 14:04	kja
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/09/21 11:43	kja
Manganese, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/06/21 1:59	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/11/21 10:48	llr
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/09/21 13:41	llr
Molybdenum, dissolved	M200.8 ICP-MS	1	0.0332			mg/L	0.0002	0.0005	02/15/21 14:48	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.0335			mg/L	0.0002	0.0005	02/17/21 15:48	mfm
Potassium, dissolved	M200.7 ICP	1	3.82			mg/L	0.2	1	02/08/21 14:04	kja
Selenium, dissolved	M200.8 ICP-MS	1	0.00082			mg/L	0.0001	0.00025	02/15/21 14:48	mfm
Selenium, total	M200.8 ICP-MS	1	0.00077			mg/L	0.0001	0.00025	02/16/21 11:11	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/15/21 14:48	mfm
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/16/21 11:11	mfm
Sodium, dissolved	M200.7 ICP	1	47.1			mg/L	0.2	1	02/08/21 14:04	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/15/21 14:48	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/16/21 11:11	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.966			mg/L	0.0001	0.0005	02/15/21 14:48	mfm
Uranium, total	M200.8 ICP-MS	1	0.949			mg/L	0.0001	0.0005	02/16/21 11:11	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/08/21 14:04	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/06/21 1:59	jlw

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Project ID: 3100-PO205

Sample ID: MW-19

ACZ Sample ID: **L64002-03**

Date Sampled: 01/29/21 15:24

Date Received: 02/02/21

Sample Matrix: Groundwater

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	203			mg/L	2	20	02/05/21 0:00	eep
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	02/05/21 0:00	eep
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	02/05/21 0:00	eep
Total Alkalinity		1	203			mg/L	2	20	02/05/21 0:00	eep
Cation-Anion Balance	Calculation									
Cation-Anion Balance			1.2			%			02/25/21 0:00	calc
Sum of Anions			8.4			meq/L			02/25/21 0:00	calc
Sum of Cations			8.6			meq/L			02/25/21 0:00	calc
Chloride	SM4500Cl-E	1	7.16			mg/L	0.5	2	02/18/21 21:00	syw
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	02/12/21 11:55	syw/bjp
Fluoride	SM4500F-C	1	0.45			mg/L	0.11	0.35	02/17/21 14:11	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	1.20			mg/L	0.02	0.1	02/17/21 22:08	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	02/25/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	02/17/21 21:49	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	528			mg/L	20	40	02/02/21 16:19	jck
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	02/03/21 12:52	scd
Sulfate	D516-02/-07/-11 - Turbidimetric	5	198		*	mg/L	5	25	02/04/21 16:18	ttg
TDS (calculated)	Calculation		482			mg/L			02/25/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.10						02/25/21 0:00	calc

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-07

ACZ Sample ID: **L64002-04**

Date Sampled: 01/29/21 16:25

Date Received: 02/02/21

Sample Matrix: Groundwater

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						02/09/21 12:47	bjp/wtc
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								02/16/21 19:34	bjp
Total Hot Plate Digestion	M200.2 ICP-MS								02/15/21 9:50	mfm
Total Hot Plate Digestion	M200.2 ICP								02/04/21 18:21	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-07

ACZ Sample ID: **L64002-04**

Date Sampled: 01/29/21 16:25

Date Received: 02/02/21

Sample Matrix: Groundwater

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/09/21 11:46	kja
Aluminum, total	M200.7 ICP	1	2.04			mg/L	0.05	0.25	02/06/21 2:02	jlw
Antimony, dissolved	M200.8 ICP-MS	1	0.00091	B		mg/L	0.0004	0.002	02/15/21 14:54	mfm
Antimony, total	M200.8 ICP-MS	1	0.00045	B		mg/L	0.0004	0.002	02/16/21 11:13	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	02/15/21 14:54	mfm
Arsenic, total	M200.8 ICP-MS	1	0.00112			mg/L	0.0002	0.001	02/16/21 11:13	mfm
Boron, dissolved	M200.7 ICP	1	0.070	B		mg/L	0.02	0.1	02/08/21 14:07	kja
Boron, total	M200.7 ICP	1	0.055	B		mg/L	0.02	0.1	02/08/21 12:20	jlw
Calcium, dissolved	M200.7 ICP	1	121			mg/L	0.1	0.5	02/08/21 14:07	kja
Chromium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 14:07	kja
Chromium, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 15:40	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 14:07	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/06/21 2:02	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	02/09/21 11:46	kja
Iron, total	M200.7 ICP	1	2.77			mg/L	0.06	0.15	02/06/21 2:02	jlw
Lead, dissolved	M200.8 ICP-MS	1	0.00032	B		mg/L	0.0001	0.0005	02/15/21 14:54	mfm
Lead, total	M200.8 ICP-MS	1	0.00305			mg/L	0.0001	0.0005	02/16/21 11:13	mfm
Magnesium, dissolved	M200.7 ICP	1	48.7			mg/L	0.2	1	02/08/21 14:07	kja
Manganese, dissolved	M200.7 ICP	1	0.012	B		mg/L	0.01	0.05	02/09/21 11:46	kja
Manganese, total	M200.7 ICP	1	0.121			mg/L	0.01	0.05	02/06/21 2:02	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/11/21 10:49	llr
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/09/21 13:42	llr
Molybdenum, dissolved	M200.8 ICP-MS	1	0.0388			mg/L	0.0002	0.0005	02/15/21 14:54	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.0386			mg/L	0.0002	0.0005	02/17/21 15:50	mfm
Potassium, dissolved	M200.7 ICP	1	5.31			mg/L	0.2	1	02/08/21 14:07	kja
Selenium, dissolved	M200.8 ICP-MS	1	0.00019	B		mg/L	0.0001	0.00025	02/15/21 14:54	mfm
Selenium, total	M200.8 ICP-MS	1	0.00016	B		mg/L	0.0001	0.00025	02/16/21 11:13	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/15/21 14:54	mfm
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/16/21 11:13	mfm
Sodium, dissolved	M200.7 ICP	1	57.9			mg/L	0.2	1	02/08/21 14:07	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/15/21 14:54	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/16/21 11:13	mfm
Uranium, dissolved	M200.8 ICP-MS	1	1.64			mg/L	0.0001	0.0005	02/15/21 14:54	mfm
Uranium, total	M200.8 ICP-MS	1	1.55			mg/L	0.0001	0.0005	02/16/21 11:13	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/08/21 14:07	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/06/21 2:02	jlw

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-07

ACZ Sample ID: **L64002-04**

Date Sampled: 01/29/21 16:25

Date Received: 02/02/21

Sample Matrix: Groundwater

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	239			mg/L	2	20	02/05/21 0:00	eep
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	02/05/21 0:00	eep
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	02/05/21 0:00	eep
Total Alkalinity		1	239			mg/L	2	20	02/05/21 0:00	eep
Cation-Anion Balance	Calculation									
Cation-Anion Balance			0.0			%			02/25/21 0:00	calc
Sum of Anions			13			meq/L			02/25/21 0:00	calc
Sum of Cations			13			meq/L			02/25/21 0:00	calc
Chloride	SM4500Cl-E	1	18.9			mg/L	0.5	2	02/18/21 21:02	syw
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	02/12/21 11:55	syw/bjp
Fluoride	SM4500F-C	1	0.44			mg/L	0.11	0.35	02/17/21 14:16	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	0.682			mg/L	0.02	0.1	02/17/21 22:09	pjb
Phosphate, total	Calculation based on total Phosphorus		0.14	B		mg/L	0.03	0.2	02/25/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	0.045	B	*	mg/L	0.01	0.05	02/17/21 21:51	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	854			mg/L	20	40	02/02/21 16:22	jck
Residue, Non-Filterable (TSS) @105C	SM2540D	1	18.0	B	*	mg/L	5	20	02/03/21 12:54	scd
Sulfate	D516-02/-07/-11 - Turbidimetric	20	377		*	mg/L	20	100	02/04/21 16:30	ttg
TDS (calculated)	Calculation		775			mg/L			02/25/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.10						02/25/21 0:00	calc



Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste.
(5)	Standard Methods for the Examination of Water and Wastewater.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4)	An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5)	If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Ensero Solutions

ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alkalinity as CaCO3

SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513909													
WG513909PBW1	PBW	02/04/21 20:12				U	mg/L		-20	20			
WG513909LCSW3	LCSW	02/04/21 20:30	WC210130-4	820.0001		772.9	mg/L	94	90	110			
WG513909LCSW6	LCSW	02/04/21 23:02	WC210130-4	820.0001		774.9	mg/L	94	90	110			
WG513909PBW2	PBW	02/04/21 23:11				2.8	mg/L		-20	20			
L64002-01DUP	DUP	02/05/21 2:59			70.5	69.4	mg/L				2	20	
WG513909LCSW9	LCSW	02/05/21 3:18	WC210130-4	820.0001		795.3	mg/L	97	90	110			
WG513909PBW3	PBW	02/05/21 3:28				2.8	mg/L		-20	20			
WG513909LCSW12	LCSW	02/05/21 6:49	WC210130-4	820.0001		800.1	mg/L	98	90	110			
WG513909PBW4	PBW	02/05/21 6:59				3.1	mg/L		-20	20			
WG513909LCSW15	LCSW	02/05/21 10:16	WC210130-4	820.0001		793.5	mg/L	97	90	110			
WG513957													
WG513957PBW1	PBW	02/05/21 19:21				25.7	mg/L		-20	20			B4 BF
WG513957LCSW3	LCSW	02/05/21 19:38	WC210130-4	820.0001		772.2	mg/L	94	90	110			
WG513957LCSW6	LCSW	02/05/21 22:15	WC210130-4	820.0001		790.2	mg/L	96	90	110			
WG513957PBW2	PBW	02/05/21 22:25				2.9	mg/L		-20	20			
L64002-04DUP	DUP	02/05/21 23:19			239	224.4	mg/L				6	20	
WG513957LCSW9	LCSW	02/06/21 1:17	WC210130-4	820.0001		780.7	mg/L	95	90	110			
WG513957PBW3	PBW	02/06/21 1:27				3	mg/L		-20	20			
WG513957LCSW12	LCSW	02/06/21 3:01	WC210130-4	820.0001		792.1	mg/L	97	90	110			

Aluminum, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514021													
WG514021ICV	ICV	02/09/21 11:07	II210127-1	2		1.994	mg/L	100	95	105			
WG514021ICB	ICB	02/09/21 11:13				U	mg/L		-0.15	0.15			
WG514021PQV	PQV	02/09/21 11:16	II210204-2	.250325		.295	mg/L	118	70	130			
WG514021SIC	SIC	02/09/21 11:19	II210118-1	200.510325		207.4	mg/L	103	1	200			
WG514021LFB	LFB	02/09/21 11:25	II210208-3	1.0013		.973	mg/L	97	85	115			
L64002-02AS	AS	02/09/21 11:37	II210208-3	1.0013	U	.969	mg/L	97	85	115			
L64002-02ASD	ASD	02/09/21 11:40	II210208-3	1.0013	U	.98	mg/L	98	85	115	1	20	
WG514021CCV1	CCV	02/09/21 11:56	II210125-2	1		1.007	mg/L	101	90	110			
WG514021CCB1	CCB	02/09/21 11:59				U	mg/L		-0.15	0.15			
WG514021CCV2	CCV	02/09/21 12:33	II210125-2	1		1.016	mg/L	102	90	110			
WG514021CCB2	CCB	02/09/21 12:36				U	mg/L		-0.15	0.15			
WG514021CCV3	CCV	02/09/21 12:48	II210125-2	1		1.016	mg/L	102	90	110			
WG514021CCB3	CCB	02/09/21 12:51				U	mg/L		-0.15	0.15			

Ensero Solutions

ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Aluminum, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513924													
WG513924ICV	ICV	02/06/21 0:51	II210119-2	2		1.928	mg/L	96	95	105			
WG513924ICB	ICB	02/06/21 0:57				U	mg/L		-0.15	0.15			
WG513924PQV	PQV	02/06/21 1:01	II210204-2	.250325		.191	mg/L	76	70	130			
WG513924SIC	SIC	02/06/21 1:04	II210119-1	200.510325		206	mg/L	103	1	200			
WG513885LRB	LRB	02/06/21 1:10				U	mg/L		-0.11	0.11			
WG513885LFB	LFB	02/06/21 1:14	II210129-2	1.0013		1.004	mg/L	100	85	115			
L63972-06LFM	LFM	02/06/21 1:37	II210129-2	1.0013	U	.991	mg/L	99	70	130			
L63972-06LFMD	LFMD	02/06/21 1:40	II210129-2	1.0013	U	.985	mg/L	98	70	130	1	20	
WG513924CCV1	CCV	02/06/21 1:43	II210204-3	1		.947	mg/L	95	90	110			
WG513924CCB1	CCB	02/06/21 1:46				U	mg/L		-0.15	0.15			
WG513924CCV2	CCV	02/06/21 2:22	II210204-3	1		.959	mg/L	96	90	110			
WG513924CCB2	CCB	02/06/21 2:25				U	mg/L		-0.15	0.15			
L64021-03LFM	LFM	02/06/21 2:32	II210129-2	1.0013	U	1.04	mg/L	104	70	130			
L64021-03LFMD	LFMD	02/06/21 2:35	II210129-2	1.0013	U	1.044	mg/L	104	70	130	0	20	
WG513924CCV3	CCV	02/06/21 2:48	II210204-3	1		.962	mg/L	96	90	110			
WG513924CCB3	CCB	02/06/21 2:51				U	mg/L		-0.15	0.15			

Antimony, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514377													
WG514377ICV	ICV	02/15/21 14:39	MS210115-2	.0201		.02089	mg/L	104	90	110			
WG514377ICB	ICB	02/15/21 14:41				U	mg/L		-0.00088	0.00088			
WG514377LFB	LFB	02/15/21 14:43	MS201228-2	.01		.00853	mg/L	85	85	115			
L64002-03AS	AS	02/15/21 14:50	MS201228-2	.01	U	.00749	mg/L	75	70	130			
L64002-03ASD	ASD	02/15/21 14:52	MS201228-2	.01	U	.00789	mg/L	79	70	130	5	20	
WG514377CCV1	CCV	02/15/21 15:01	MS210212-2	.0125		.01276	mg/L	102	90	110			
WG514377CCB1	CCB	02/15/21 15:03				U	mg/L		-0.0012	0.0012			
WG514377CCV2	CCV	02/15/21 15:22	MS210212-2	.0125		.0129	mg/L	103	90	110			
WG514377CCB2	CCB	02/15/21 15:24				U	mg/L		-0.0012	0.0012			
WG514377CCV3	CCV	02/15/21 15:35	MS210212-2	.0125		.01261	mg/L	101	90	110			
WG514377CCB3	CCB	02/15/21 15:37				U	mg/L		-0.0012	0.0012			

Antimony, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514424													
WG514424ICV	ICV	02/16/21 11:00	MS210115-2	.0201		.01953	mg/L	97	90	110			
WG514424ICB	ICB	02/16/21 11:02				U	mg/L		-0.0012	0.0012			
WG514327LRB	LRB	02/16/21 11:04				U	mg/L		-0.00088	0.00088			
WG514327LFB	LFB	02/16/21 11:06	MS201228-2	.01		.00945	mg/L	95	85	115			
L64144-02LFM	LFM	02/16/21 11:18	MS201228-2	.01	U	.00996	mg/L	100	70	130			
L64144-02LFMD	LFMD	02/16/21 11:20	MS201228-2	.01	U	.00996	mg/L	100	70	130	0	20	
WG514424CCV1	CCV	02/16/21 11:22	MS210212-2	.0125		.01193	mg/L	95	90	110			
WG514424CCB1	CCB	02/16/21 11:23				U	mg/L		-0.0012	0.0012			
WG514424CCV2	CCV	02/16/21 11:43	MS210212-2	.0125		.01199	mg/L	96	90	110			
WG514424CCB2	CCB	02/16/21 11:45				U	mg/L		-0.0012	0.0012			
WG514424CCV3	CCV	02/16/21 11:57	MS210212-2	.0125		.0118	mg/L	94	90	110			
WG514424CCB3	CCB	02/16/21 11:59				U	mg/L		-0.0012	0.0012			

Ensero Solutions

ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Arsenic, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514377													
WG514377ICV	ICV	02/15/21 14:39	MS210115-2	.05		.04841	mg/L	97	90	110			
WG514377ICB	ICB	02/15/21 14:41				U	mg/L		-0.00044	0.00044			
WG514377LFB	LFB	02/15/21 14:43	MS201228-2	.05005		.05064	mg/L	101	85	115			
L64002-03AS	AS	02/15/21 14:50	MS201228-2	.05005	U	.05181	mg/L	104	70	130			
L64002-03ASD	ASD	02/15/21 14:52	MS201228-2	.05005	U	.05231	mg/L	105	70	130	1	20	
WG514377CCV1	CCV	02/15/21 15:01	MS210212-2	.1001		.1015	mg/L	101	90	110			
WG514377CCB1	CCB	02/15/21 15:03				U	mg/L		-0.0006	0.0006			
WG514377CCV2	CCV	02/15/21 15:22	MS210212-2	.1001		.1063	mg/L	106	90	110			
WG514377CCB2	CCB	02/15/21 15:24				U	mg/L		-0.0006	0.0006			
WG514377CCV3	CCV	02/15/21 15:35	MS210212-2	.1001		.09937	mg/L	99	90	110			
WG514377CCB3	CCB	02/15/21 15:37				U	mg/L		-0.0006	0.0006			

Arsenic, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514424													
WG514424ICV	ICV	02/16/21 11:00	MS210115-2	.05		.04827	mg/L	97	90	110			
WG514424ICB	ICB	02/16/21 11:02				U	mg/L		-0.0006	0.0006			
WG514327LRB	LRB	02/16/21 11:04				U	mg/L		-0.00044	0.00044			
WG514327LFB	LFB	02/16/21 11:06	MS201228-2	.05005		.04779	mg/L	95	85	115			
L64144-02LFM	LFM	02/16/21 11:18	MS201228-2	.05005	.00032	.04579	mg/L	91	70	130			
L64144-02LFMD	LFMD	02/16/21 11:20	MS201228-2	.05005	.00032	.04794	mg/L	95	70	130	5	20	
WG514424CCV1	CCV	02/16/21 11:22	MS210212-2	.1001		.09581	mg/L	96	90	110			
WG514424CCB1	CCB	02/16/21 11:23				U	mg/L		-0.0006	0.0006			
WG514424CCV2	CCV	02/16/21 11:43	MS210212-2	.1001		.09828	mg/L	98	90	110			
WG514424CCB2	CCB	02/16/21 11:45				U	mg/L		-0.0006	0.0006			
WG514424CCV3	CCV	02/16/21 11:57	MS210212-2	.1001		.09598	mg/L	96	90	110			
WG514424CCB3	CCB	02/16/21 11:59				U	mg/L		-0.0006	0.0006			

Boron, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513980													
WG513980ICV	ICV	02/08/21 13:30	II210127-1	2		1.937	mg/L	97	95	105			
WG513980ICB	ICB	02/08/21 13:36				U	mg/L		-0.06	0.06			
WG513980PQV	PQV	02/08/21 13:39	II210204-2	.1001		.106	mg/L	106	70	130			
WG513980SIC	SIC	02/08/21 13:42	II210118-1	.1001		.094	mg/L	94	80	120			
WG513980LFB	LFB	02/08/21 13:48	II210129-2	.5005		.486	mg/L	97	85	115			
L64002-04AS	AS	02/08/21 14:10	II210129-2	.5005	.07	.546	mg/L	95	85	115			
L64002-04ASD	ASD	02/08/21 14:13	II210129-2	.5005	.07	.556	mg/L	97	85	115	2	20	
WG513980CCV1	CCV	02/08/21 14:19	II210125-2	1		.97	mg/L	97	90	110			
WG513980CCB1	CCB	02/08/21 14:22				U	mg/L		-0.06	0.06			
WG513980CCV2	CCV	02/08/21 14:56	II210125-2	1		.958	mg/L	96	90	110			
WG513980CCB2	CCB	02/08/21 14:59				U	mg/L		-0.06	0.06			
WG513980CCV3	CCV	02/08/21 15:18	II210125-2	1		.948	mg/L	95	90	110			
WG513980CCB3	CCB	02/08/21 15:21				U	mg/L		-0.06	0.06			

Ensero Solutions

ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Boron, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513994													
WG513994ICV	ICV	02/08/21 11:10	II210119-2	2		1.991	mg/L	100	95	105			
WG513994ICB	ICB	02/08/21 11:16				U	mg/L		-0.06	0.06			
WG513994PQV	PQV	02/08/21 11:20	II210204-2	.1001		.093	mg/L	93	70	130			
WG513994SIC	SIC	02/08/21 11:23	II210119-1	.1001		.084	mg/L	84	80	120			
WG513885LRB	LRB	02/08/21 11:29				U	mg/L		-0.044	0.044			
WG513885LFB	LFB	02/08/21 11:33	II210129-2	.5005		.515	mg/L	103	85	115			
L63972-06LFM	LFM	02/08/21 11:55	II210129-2	.5005	U	.524	mg/L	105	70	130			
L63972-06LFMD	LFMD	02/08/21 11:58	II210129-2	.5005	U	.529	mg/L	106	70	130	1	20	
WG513994CCV1	CCV	02/08/21 12:01	II210204-3	1		.988	mg/L	99	90	110			
WG513994CCB1	CCB	02/08/21 12:04				U	mg/L		-0.06	0.06			
L64021-03LFM	LFM	02/08/21 12:27	II210129-2	.5005	U	.532	mg/L	106	70	130			
L64021-03LFMD	LFMD	02/08/21 12:30	II210129-2	.5005	U	.524	mg/L	105	70	130	2	20	
WG513994CCV2	CCV	02/08/21 12:33	II210204-3	1		.998	mg/L	100	90	110			
WG513994CCB2	CCB	02/08/21 12:36				U	mg/L		-0.06	0.06			

Calcium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513980													
WG513980ICV	ICV	02/08/21 13:30	II210127-1	100		98.67	mg/L	99	95	105			
WG513980ICB	ICB	02/08/21 13:36				U	mg/L		-0.3	0.3			
WG513980PQV	PQV	02/08/21 13:39	II210204-2	.5006		.59	mg/L	118	70	130			
WG513980SIC	SIC	02/08/21 13:42	II210118-1	200.7406		197.3	mg/L	98	1	200			
WG513980LFB	LFB	02/08/21 13:48	II210129-2	68.0028		63.34	mg/L	93	85	115			
L64002-04AS	AS	02/08/21 14:10	II210129-2	68.0028	121	181.9	mg/L	90	85	115			
L64002-04ASD	ASD	02/08/21 14:13	II210129-2	68.0028	121	183.8	mg/L	92	85	115	1	20	
WG513980CCV1	CCV	02/08/21 14:19	II210125-2	50		48.9	mg/L	98	90	110			
WG513980CCB1	CCB	02/08/21 14:22				U	mg/L		-0.3	0.3			
WG513980CCV2	CCV	02/08/21 14:56	II210125-2	50		48.5	mg/L	97	90	110			
WG513980CCB2	CCB	02/08/21 14:59				U	mg/L		-0.3	0.3			
WG513980CCV3	CCV	02/08/21 15:18	II210125-2	50		47.82	mg/L	96	90	110			
WG513980CCB3	CCB	02/08/21 15:21				U	mg/L		-0.3	0.3			

Ensero Solutions

ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chloride

SM4500CI-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514058													
WG514058ICB	ICB	02/09/21 11:56				U	mg/L		-1.5	1.5			
WG514058ICV	ICV	02/09/21 11:56	WI200506-2	55.055		58.49	mg/L	106	90	110			
WG514058CCV1	CCV	02/09/21 12:20	WI210203-7	50.05		50.17	mg/L	100	90	110			
WG514058CCB1	CCB	02/09/21 12:20				U	mg/L		-1.5	1.5			
WG514058LFB1	LFB	02/09/21 12:20	WI200327-3	30.03		31.94	mg/L	106	90	110			
WG514058CCV2	CCV	02/09/21 12:22	WI210203-7	50.05		50.6	mg/L	101	90	110			
WG514058CCB2	CCB	02/09/21 12:22				U	mg/L		-1.5	1.5			
WG514058CCV3	CCV	02/09/21 12:24	WI210203-7	50.05		50.48	mg/L	101	90	110			
WG514058CCB3	CCB	02/09/21 12:24				U	mg/L		-1.5	1.5			
WG514058LFB2	LFB	02/09/21 12:24	WI200327-3	30.03		32.42	mg/L	108	90	110			
WG514058CCV4	CCV	02/09/21 12:30	WI210203-7	50.05		50.62	mg/L	101	90	110			
WG514058CCB4	CCB	02/09/21 12:30				U	mg/L		-1.5	1.5			
L64002-01AS	AS	02/09/21 12:30	WI200327-3	30.03	65	89.83	mg/L	83	90	110			M2
WG514058CCV5	CCV	02/09/21 12:30	WI210203-7	50.05		50.53	mg/L	101	90	110			
WG514058CCB5	CCB	02/09/21 12:30				U	mg/L		-1.5	1.5			
WG514058CCV6	CCV	02/09/21 12:35	WI210203-7	50.05		50.15	mg/L	100	90	110			
WG514058CCB6	CCB	02/09/21 12:35				U	mg/L		-1.5	1.5			
WG514058CCV7	CCV	02/09/21 12:37	WI210203-7	50.05		50.59	mg/L	101	90	110			
WG514058CCB7	CCB	02/09/21 12:37				U	mg/L		-1.5	1.5			
L64087-01DUP	DUP	02/09/21 12:40			224	225.88	mg/L				1	20	
WG514058CCV8	CCV	02/09/21 12:42	WI210203-7	50.05		50.37	mg/L	101	90	110			
WG514058CCB8	CCB	02/09/21 12:42				U	mg/L		-1.5	1.5			
WG514058CCV9	CCV	02/09/21 13:04	WI210203-7	50.05		50.28	mg/L	100	90	110			
WG514058CCB9	CCB	02/09/21 13:04				U	mg/L		-1.5	1.5			
WG514058CCV10	CCV	02/09/21 13:05	WI210203-7	50.05		50.19	mg/L	100	90	110			
WG514058CCB10	CCB	02/09/21 13:05				U	mg/L		-1.5	1.5			
WG514058CCV11	CCV	02/09/21 13:14	WI210203-7	50.05		50.49	mg/L	101	90	110			
WG514058CCB11	CCB	02/09/21 13:14				U	mg/L		-1.5	1.5			
WG514631													
WG514631ICB	ICB	02/18/21 15:03				U	mg/L		-1.5	1.5			
WG514631ICV	ICV	02/18/21 15:03	WI200506-2	55.055		57.8	mg/L	105	90	110			
WG514631CCV1	CCV	02/18/21 20:58	WI210203-7	50.05		50.38	mg/L	101	90	110			
WG514631CCB1	CCB	02/18/21 20:58				U	mg/L		-1.5	1.5			
WG514631LFB1	LFB	02/18/21 20:58	WI200327-3	30.03		32.29	mg/L	108	90	110			
WG514631CCV2	CCV	02/18/21 21:00	WI210203-7	50.05		50.48	mg/L	101	90	110			
WG514631CCB2	CCB	02/18/21 21:00				U	mg/L		-1.5	1.5			
L63984-03AS	AS	02/18/21 21:00	WI200327-3	30.03	38.4	66.81	mg/L	95	90	110			
L64002-02DUP	DUP	02/18/21 21:00			23.4	23.19	mg/L				1	20	
WG514631CCV3	CCV	02/18/21 21:02	WI210203-7	50.05		50.44	mg/L	101	90	110			
WG514631CCB3	CCB	02/18/21 21:02				U	mg/L		-1.5	1.5			
WG514631LFB2	LFB	02/18/21 21:02	WI200327-3	30.03		32.25	mg/L	107	90	110			
WG514631CCV4	CCV	02/18/21 21:07	WI210203-7	50.05		50.6	mg/L	101	90	110			
WG514631CCB4	CCB	02/18/21 21:07				U	mg/L		-1.5	1.5			
WG514631CCV5	CCV	02/18/21 21:08	WI210203-7	50.05		50.48	mg/L	101	90	110			
WG514631CCB5	CCB	02/18/21 21:08				U	mg/L		-1.5	1.5			
WG514631CCV6	CCV	02/18/21 21:45	WI210203-7	50.05		51.54	mg/L	103	90	110			
WG514631CCB6	CCB	02/18/21 21:45				U	mg/L		-1.5	1.5			
WG514631CCV7	CCV	02/18/21 21:46	WI210203-7	50.05		51.2	mg/L	102	90	110			
WG514631CCB7	CCB	02/18/21 21:46				U	mg/L		-1.5	1.5			

Ensero Solutions

ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chromium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513980													
WG513980ICV	ICV	02/08/21 13:30	II210127-1	2		1.96	mg/L	98	95	105			
WG513980ICB	ICB	02/08/21 13:36				U	mg/L		-0.03	0.03			
WG513980PQV	PQV	02/08/21 13:39	II210204-2	.05015		.051	mg/L	102	70	130			
WG513980SIC	SIC	02/08/21 13:42	II210118-1	.1003		.104	mg/L	104	80	120			
WG513980LFB	LFB	02/08/21 13:48	II210129-2	.5015		.482	mg/L	96	85	115			
L64002-04AS	AS	02/08/21 14:10	II210129-2	.5015	U	.481	mg/L	96	85	115			
L64002-04ASD	ASD	02/08/21 14:13	II210129-2	.5015	U	.487	mg/L	97	85	115	1	20	
WG513980CCV1	CCV	02/08/21 14:19	II210125-2	1		.981	mg/L	98	90	110			
WG513980CCB1	CCB	02/08/21 14:22				U	mg/L		-0.03	0.03			
WG513980CCV2	CCV	02/08/21 14:56	II210125-2	1		.97	mg/L	97	90	110			
WG513980CCB2	CCB	02/08/21 14:59				U	mg/L		-0.03	0.03			
WG513980CCV3	CCV	02/08/21 15:18	II210125-2	1		.96	mg/L	96	90	110			
WG513980CCB3	CCB	02/08/21 15:21				U	mg/L		-0.03	0.03			

Chromium, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514009													
WG514009ICV	ICV	02/08/21 14:30	II210119-2	2		1.976	mg/L	99	95	105			
WG514009ICB	ICB	02/08/21 14:36				U	mg/L		-0.03	0.03			
WG514009PQV	PQV	02/08/21 14:39	II210204-2	.05015		.051	mg/L	102	70	130			
WG514009SIC	SIC	02/08/21 14:42	II210119-1	.1003		.093	mg/L	93	80	120			
WG513885LRB	LRB	02/08/21 14:49				U	mg/L		-0.022	0.022			
WG513885LFB	LFB	02/08/21 14:52	II210129-2	.5015		.503	mg/L	100	85	115			
L63972-06LFM	LFM	02/08/21 15:14	II210129-2	.5015	U	.503	mg/L	100	70	130			
L63972-06LFMD	LFMD	02/08/21 15:17	II210129-2	.5015	U	.498	mg/L	99	70	130	1	20	
WG514009CCV1	CCV	02/08/21 15:21	II210204-3	1		1.015	mg/L	102	90	110			
WG514009CCB1	CCB	02/08/21 15:24				U	mg/L		-0.03	0.03			
L64021-03LFM	LFM	02/08/21 15:46	II210129-2	.5015	U	.5	mg/L	100	70	130			
L64021-03LFMD	LFMD	02/08/21 15:49	II210129-2	.5015	U	.501	mg/L	100	70	130	0	20	
WG514009CCV2	CCV	02/08/21 15:52	II210204-3	1		1.01	mg/L	101	90	110			
WG514009CCB2	CCB	02/08/21 15:55				U	mg/L		-0.03	0.03			

Copper, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513980													
WG513980ICV	ICV	02/08/21 13:30	II210127-1	2		1.944	mg/L	97	95	105			
WG513980ICB	ICB	02/08/21 13:36				U	mg/L		-0.03	0.03			
WG513980PQV	PQV	02/08/21 13:39	II210204-2	.0501		.049	mg/L	98	70	130			
WG513980SIC	SIC	02/08/21 13:42	II210118-1	.1002		.091	mg/L	91	80	120			
WG513980LFB	LFB	02/08/21 13:48	II210129-2	.5015		.476	mg/L	95	85	115			
L64002-04AS	AS	02/08/21 14:10	II210129-2	.5015	U	.482	mg/L	96	85	115			
L64002-04ASD	ASD	02/08/21 14:13	II210129-2	.5015	U	.488	mg/L	97	85	115	1	20	
WG513980CCV1	CCV	02/08/21 14:19	II210125-2	1		.97	mg/L	97	90	110			
WG513980CCB1	CCB	02/08/21 14:22				U	mg/L		-0.03	0.03			
WG513980CCV2	CCV	02/08/21 14:56	II210125-2	1		.954	mg/L	95	90	110			
WG513980CCB2	CCB	02/08/21 14:59				U	mg/L		-0.03	0.03			
WG513980CCV3	CCV	02/08/21 15:18	II210125-2	1		.95	mg/L	95	90	110			
WG513980CCB3	CCB	02/08/21 15:21				U	mg/L		-0.03	0.03			

Ensero Solutions

ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Copper, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513924													
WG513924ICV	ICV	02/06/21 0:51	II210119-2	2		1.917	mg/L	96	95	105			
WG513924ICB	ICB	02/06/21 0:57				U	mg/L		-0.03	0.03			
WG513924PQV	PQV	02/06/21 1:01	II210204-2	.0501		.041	mg/L	82	70	130			
WG513924SIC	SIC	02/06/21 1:04	II210119-1	.1002		.09	mg/L	90	80	120			
WG513885LRB	LRB	02/06/21 1:10				U	mg/L		-0.022	0.022			
WG513885LFB	LFB	02/06/21 1:14	II210129-2	.5015		.489	mg/L	98	85	115			
L63972-06LFM	LFM	02/06/21 1:37	II210129-2	.5015	U	.484	mg/L	97	70	130			
L63972-06LFMD	LFMD	02/06/21 1:40	II210129-2	.5015	U	.483	mg/L	96	70	130	0	20	
WG513924CCV1	CCV	02/06/21 1:43	II210204-3	1		.959	mg/L	96	90	110			
WG513924CCB1	CCB	02/06/21 1:46				U	mg/L		-0.03	0.03			
WG513924CCV2	CCV	02/06/21 2:22	II210204-3	1		.969	mg/L	97	90	110			
WG513924CCB2	CCB	02/06/21 2:25				U	mg/L		-0.03	0.03			
L64021-03LFM	LFM	02/06/21 2:32	II210129-2	.5015	U	.494	mg/L	99	70	130			
L64021-03LFMD	LFMD	02/06/21 2:35	II210129-2	.5015	U	.489	mg/L	98	70	130	1	20	
WG513924CCV3	CCV	02/06/21 2:48	II210204-3	1		.977	mg/L	98	90	110			
WG513924CCB3	CCB	02/06/21 2:51				U	mg/L		-0.03	0.03			

Cyanide, WAD

SM4500-CN I,E-Colorimetric w/ distillation

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514242													
WG514242ICV	ICV	02/12/21 11:47	WI210131-3	.3003		.2736	mg/L	91	90	110			
WG514242ICB	ICB	02/12/21 11:48				U	mg/L		-0.003	0.003			
WG514053LRB	LRB	02/12/21 11:48				U	mg/L		-0.003	0.003			
WG514053LFB	LFB	02/12/21 11:49	WI210127-5	.2		.184	mg/L	92	90	110			
L64002-01DUP	DUP	02/12/21 11:52			U	U	mg/L				0	20	RA
L64002-02LFM	LFM	02/12/21 11:54	WI210127-5	.2	U	.1849	mg/L	92	90	110			
WG514242CCV1	CCV	02/12/21 11:57	WI210131-5	.25		.2528	mg/L	101	90	110			
WG514242CCB1	CCB	02/12/21 11:58				U	mg/L		-0.003	0.003			
WG514242CCV2	CCV	02/12/21 12:08	WI210131-5	.25		.253	mg/L	101	90	110			
WG514242CCB2	CCB	02/12/21 12:09				U	mg/L		-0.003	0.003			
WG514242CCV3	CCV	02/12/21 12:22	WI210131-5	.25		.2546	mg/L	102	90	110			
WG514242CCB3	CCB	02/12/21 12:23				U	mg/L		-0.003	0.003			
WG514242CCV4	CCV	02/12/21 12:31	WI210131-5	.25		.2544	mg/L	102	90	110			
WG514242CCB4	CCB	02/12/21 12:32				U	mg/L		-0.003	0.003			

Ensero Solutions

ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Fluoride

SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514500													
WG514500ICV	ICV	02/17/21 12:22	WC210213-2	2.002		2.01	mg/L	100	90	110			
WG514500ICB	ICB	02/17/21 12:29				U	mg/L		-0.33	0.33			
WG514500PQV	PQV	02/17/21 12:33	WC210130-1	.35105		.35	mg/L	100	70	130			
WG514500LFB1	LFB	02/17/21 12:38	WC201221-2	5.015		5.15	mg/L	103	90	110			
WG514500CCV1	CCV	02/17/21 13:27	WC210213-2	2.002		2.05	mg/L	102	90	110			
WG514500CCB1	CCB	02/17/21 13:35				U	mg/L		-0.33	0.33			
WG514500CCV2	CCV	02/17/21 14:25	WC210213-2	2.002		2.07	mg/L	103	90	110			
WG514500CCB2	CCB	02/17/21 14:34				U	mg/L		-0.33	0.33			
L64083-01AS	AS	02/17/21 14:51	WC201221-2	5.015	1.69	6.46	mg/L	95	90	110			
L64083-01ASD	ASD	02/17/21 14:55	WC201221-2	5.015	1.69	6.46	mg/L	95	90	110	0	20	
WG514500LFB2	LFB	02/17/21 14:59	WC201221-2	5.015		5.24	mg/L	104	90	110			
WG514500CCV3	CCV	02/17/21 15:49	WC210213-2	2.002		2.04	mg/L	102	90	110			
WG514500CCB3	CCB	02/17/21 15:57				U	mg/L		-0.33	0.33			
WG514500CCV4	CCV	02/17/21 16:47	WC210213-2	2.002		2.09	mg/L	104	90	110			
WG514500CCB4	CCB	02/17/21 16:55				U	mg/L		-0.33	0.33			
WG514500CCV5	CCV	02/17/21 18:34	WC210213-2	2.002		2.06	mg/L	103	90	110			
WG514500CCB5	CCB	02/17/21 18:42				U	mg/L		-0.33	0.33			

Iron, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514021													
WG514021ICV	ICV	02/09/21 11:07	II210127-1	2		1.943	mg/L	97	95	105			
WG514021ICB	ICB	02/09/21 11:13				U	mg/L		-0.18	0.18			
WG514021PQV	PQV	02/09/21 11:16	II210204-2	.15027		.195	mg/L	130	70	130			
WG514021SIC	SIC	02/09/21 11:19	II210118-1	200.51027		195.7	mg/L	98	1	200			
WG514021LFB	LFB	02/09/21 11:25	II210208-3	1.0018		.963	mg/L	96	85	115			
L64002-02AS	AS	02/09/21 11:37	II210208-3	1.0018	U	.948	mg/L	95	85	115			
L64002-02ASD	ASD	02/09/21 11:40	II210208-3	1.0018	U	.955	mg/L	95	85	115	1	20	
WG514021CCV1	CCV	02/09/21 11:56	II210125-2	1		.986	mg/L	99	90	110			
WG514021CCB1	CCB	02/09/21 11:59				U	mg/L		-0.18	0.18			
WG514021CCV2	CCV	02/09/21 12:33	II210125-2	1		1.006	mg/L	101	90	110			
WG514021CCB2	CCB	02/09/21 12:36				U	mg/L		-0.18	0.18			
WG514021CCV3	CCV	02/09/21 12:48	II210125-2	1		1	mg/L	100	90	110			
WG514021CCB3	CCB	02/09/21 12:51				U	mg/L		-0.18	0.18			

Ensero Solutions

ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Iron, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513924													
WG513924ICV	ICV	02/06/21 0:51	II210119-2	2		1.916	mg/L	96	95	105			
WG513924ICB	ICB	02/06/21 0:57				U	mg/L		-0.18	0.18			
WG513924PQV	PQV	02/06/21 1:01	II210204-2	.15027		.135	mg/L	90	70	130			
WG513924SIC	SIC	02/06/21 1:04	II210119-1	200.51027		200.5	mg/L	100	1	200			
WG513885LRB	LRB	02/06/21 1:10				U	mg/L		-0.132	0.132			
WG513885LFB	LFB	02/06/21 1:14	II210129-2	1.0018		.995	mg/L	99	85	115			
L63972-06LFM	LFM	02/06/21 1:37	II210129-2	1.0018	U	.976	mg/L	97	70	130			
L63972-06LFMD	LFMD	02/06/21 1:40	II210129-2	1.0018	U	.971	mg/L	97	70	130	1	20	
WG513924CCV1	CCV	02/06/21 1:43	II210204-3	1		.965	mg/L	97	90	110			
WG513924CCB1	CCB	02/06/21 1:46				U	mg/L		-0.18	0.18			
WG513924CCV2	CCV	02/06/21 2:22	II210204-3	1		.969	mg/L	97	90	110			
WG513924CCB2	CCB	02/06/21 2:25				U	mg/L		-0.18	0.18			
L64021-03LFM	LFM	02/06/21 2:32	II210129-2	1.0018	.061	1.067	mg/L	100	70	130			
L64021-03LFMD	LFMD	02/06/21 2:35	II210129-2	1.0018	.061	1.068	mg/L	101	70	130	0	20	
WG513924CCV3	CCV	02/06/21 2:48	II210204-3	1		.985	mg/L	99	90	110			
WG513924CCB3	CCB	02/06/21 2:51				U	mg/L		-0.18	0.18			

Lead, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514377													
WG514377ICV	ICV	02/15/21 14:39	MS210115-2	.05		.05026	mg/L	101	90	110			
WG514377ICB	ICB	02/15/21 14:41				U	mg/L		-0.00022	0.00022			
WG514377LFB	LFB	02/15/21 14:43	MS201228-2	.05005		.04985	mg/L	100	85	115			
L64002-03AS	AS	02/15/21 14:50	MS201228-2	.05005	U	.0506	mg/L	101	70	130			
L64002-03ASD	ASD	02/15/21 14:52	MS201228-2	.05005	U	.04987	mg/L	100	70	130	1	20	
WG514377CCV1	CCV	02/15/21 15:01	MS210212-2	.25025		.24772	mg/L	99	90	110			
WG514377CCB1	CCB	02/15/21 15:03				U	mg/L		-0.0003	0.0003			
WG514377CCV2	CCV	02/15/21 15:22	MS210212-2	.25025		.24458	mg/L	98	90	110			
WG514377CCB2	CCB	02/15/21 15:24				U	mg/L		-0.0003	0.0003			
WG514377CCV3	CCV	02/15/21 15:35	MS210212-2	.25025		.23833	mg/L	95	90	110			
WG514377CCB3	CCB	02/15/21 15:37				U	mg/L		-0.0003	0.0003			

Lead, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514424													
WG514424ICV	ICV	02/16/21 11:00	MS210115-2	.05		.05082	mg/L	102	90	110			
WG514424ICB	ICB	02/16/21 11:02				U	mg/L		-0.0003	0.0003			
WG514327LRB	LRB	02/16/21 11:04				U	mg/L		-0.00022	0.00022			
WG514327LFB	LFB	02/16/21 11:06	MS201228-2	.05005		.04777	mg/L	95	85	115			
L64144-02LFM	LFM	02/16/21 11:18	MS201228-2	.05005	.00026	.04813	mg/L	96	70	130			
L64144-02LFMD	LFMD	02/16/21 11:20	MS201228-2	.05005	.00026	.04837	mg/L	96	70	130	0	20	
WG514424CCV1	CCV	02/16/21 11:22	MS210212-2	.25025		.24094	mg/L	96	90	110			
WG514424CCB1	CCB	02/16/21 11:23				U	mg/L		-0.0003	0.0003			
WG514424CCV2	CCV	02/16/21 11:43	MS210212-2	.25025		.24935	mg/L	100	90	110			
WG514424CCB2	CCB	02/16/21 11:45				U	mg/L		-0.0003	0.0003			
WG514424CCV3	CCV	02/16/21 11:57	MS210212-2	.25025		.23721	mg/L	95	90	110			
WG514424CCB3	CCB	02/16/21 11:59				U	mg/L		-0.0003	0.0003			

Ensero Solutions

ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Magnesium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513980													
WG513980ICV	ICV	02/08/21 13:30	II210127-1	100		99.06	mg/L	99	95	105			
WG513980ICB	ICB	02/08/21 13:36				U	mg/L		-0.6	0.6			
WG513980PQV	PQV	02/08/21 13:39	II210204-2	1.0001		1.01	mg/L	101	70	130			
WG513980SIC	SIC	02/08/21 13:42	II210118-1	201.0201		204.8	mg/L	102	1	200			
WG513980LFB	LFB	02/08/21 13:48	II210129-2	50.00226		46.15	mg/L	92	85	115			
L64002-04AS	AS	02/08/21 14:10	II210129-2	50.00226	48.7	95.58	mg/L	94	85	115			
L64002-04ASD	ASD	02/08/21 14:13	II210129-2	50.00226	48.7	96.46	mg/L	96	85	115	1	20	
WG513980CCV1	CCV	02/08/21 14:19	II210125-2	50		48.83	mg/L	98	90	110			
WG513980CCB1	CCB	02/08/21 14:22				U	mg/L		-0.6	0.6			
WG513980CCV2	CCV	02/08/21 14:56	II210125-2	50		48.62	mg/L	97	90	110			
WG513980CCB2	CCB	02/08/21 14:59				U	mg/L		-0.6	0.6			
WG513980CCV3	CCV	02/08/21 15:18	II210125-2	50		47.69	mg/L	95	90	110			
WG513980CCB3	CCB	02/08/21 15:21				U	mg/L		-0.6	0.6			

Manganese, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514021													
WG514021ICV	ICV	02/09/21 11:07	II210127-1	2		1.94	mg/L	97	95	105			
WG514021ICB	ICB	02/09/21 11:13				U	mg/L		-0.03	0.03			
WG514021PQV	PQV	02/09/21 11:16	II210204-2	.0501		.061	mg/L	122	70	130			
WG514021SIC	SIC	02/09/21 11:19	II210118-1	50.1001		47.69	mg/L	95	1	200			
WG514021LFB	LFB	02/09/21 11:25	II210208-3	.5005		.462	mg/L	92	85	115			
L64002-02AS	AS	02/09/21 11:37	II210208-3	.5005	U	.455	mg/L	91	85	115			
L64002-02ASD	ASD	02/09/21 11:40	II210208-3	.5005	U	.459	mg/L	92	85	115	1	20	
WG514021CCV1	CCV	02/09/21 11:56	II210125-2	1		.995	mg/L	100	90	110			
WG514021CCB1	CCB	02/09/21 11:59				U	mg/L		-0.03	0.03			
WG514021CCV2	CCV	02/09/21 12:33	II210125-2	1		1.013	mg/L	101	90	110			
WG514021CCB2	CCB	02/09/21 12:36				U	mg/L		-0.03	0.03			
WG514021CCV3	CCV	02/09/21 12:48	II210125-2	1		1.003	mg/L	100	90	110			
WG514021CCB3	CCB	02/09/21 12:51				U	mg/L		-0.03	0.03			

Ensero Solutions

ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Manganese, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513924													
WG513924ICV	ICV	02/06/21 0:51	II210119-2	2		1.92	mg/L	96	95	105			
WG513924ICB	ICB	02/06/21 0:57				U	mg/L		-0.03	0.03			
WG513924PQV	PQV	02/06/21 1:01	II210204-2	.0501		.04	mg/L	80	70	130			
WG513924SIC	SIC	02/06/21 1:04	II210119-1	50.1001		46.28	mg/L	92	1	200			
WG513885LRB	LRB	02/06/21 1:10				U	mg/L		-0.022	0.022			
WG513885LFB	LFB	02/06/21 1:14	II210129-2	.5005		.485	mg/L	97	85	115			
L63972-06LFM	LFM	02/06/21 1:37	II210129-2	.5005	U	.477	mg/L	95	70	130			
L63972-06LFMD	LFMD	02/06/21 1:40	II210129-2	.5005	U	.476	mg/L	95	70	130	0	20	
WG513924CCV1	CCV	02/06/21 1:43	II210204-3	1		.971	mg/L	97	90	110			
WG513924CCB1	CCB	02/06/21 1:46				U	mg/L		-0.03	0.03			
WG513924CCV2	CCV	02/06/21 2:22	II210204-3	1		.981	mg/L	98	90	110			
WG513924CCB2	CCB	02/06/21 2:25				U	mg/L		-0.03	0.03			
L64021-03LFM	LFM	02/06/21 2:32	II210129-2	.5005	.015	.508	mg/L	99	70	130			
L64021-03LFMD	LFMD	02/06/21 2:35	II210129-2	.5005	.015	.507	mg/L	98	70	130	0	20	
WG513924CCV3	CCV	02/06/21 2:48	II210204-3	1		.99	mg/L	99	90	110			
WG513924CCB3	CCB	02/06/21 2:51				U	mg/L		-0.03	0.03			

Mercury, dissolved

M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514129													
WG514129ICV	ICV	02/11/21 10:22	HG210118-2	.005		.00482	mg/L	96	95	105			
WG514129ICB	ICB	02/11/21 10:23				U	mg/L		-0.0002	0.0002			
WG514129PQV	PQV	02/11/21 10:24	HG210208-4	.001001		.00095	mg/L	95	70	130			
WG514129LRB	LRB	02/11/21 10:25				U	mg/L		-0.00044	0.00044			
WG514129LFB	LFB	02/11/21 10:26	HG210208-5	.002002		.00194	mg/L	97	85	115			
WG514129CCV1	CCV	02/11/21 10:34	HG210118-2	.005		.00483	mg/L	97	90	110			
WG514129CCB1	CCB	02/11/21 10:35				U	mg/L		-0.0002	0.0002			
WG514129CCV2	CCV	02/11/21 10:45	HG210118-2	.005		.00484	mg/L	97	90	110			
WG514129CCB2	CCB	02/11/21 10:46				U	mg/L		-0.0002	0.0002			
L64002-04LFM	LFM	02/11/21 10:50	HG210208-5	.002002	U	.00181	mg/L	90	85	115			
L64002-04LFMD	LFMD	02/11/21 10:51	HG210208-5	.002002	U	.00184	mg/L	92	85	115	2	20	
WG514129CCV3	CCV	02/11/21 10:54	HG210118-2	.005		.00486	mg/L	97	90	110			
WG514129CCB3	CCB	02/11/21 10:55				U	mg/L		-0.0002	0.0002			

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ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Mercury, total

M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514030													
WG514030ICV	ICV	02/09/21 13:13	HG210118-2	.005		.00515	mg/L	103	90	110			
WG514030ICB	ICB	02/09/21 13:13				U	mg/L		-0.0006	0.0006			
WG514032													
WG514032CCV1	CCV	02/09/21 13:22	HG210118-2	.005		.00481	mg/L	96	90	110			
WG514032CCB1	CCB	02/09/21 13:23				U	mg/L		-0.0002	0.0002			
WG514032PQV	PQV	02/09/21 13:24	HG210208-4	.001001		.00092	mg/L	92	70	130			
WG514032LRB	LRB	02/09/21 13:25				U	mg/L		-0.00044	0.00044			
WG514032LFB	LFB	02/09/21 13:26	HG210208-5	.002002		.00184	mg/L	92	85	115			
L63972-03LFB	LFB	02/09/21 13:32	HG210208-5	.002002	U	.00188	mg/L	94	85	115			
L63972-03LFMD	LFMD	02/09/21 13:33	HG210208-5	.002002	U	.00187	mg/L	93	85	115	1	20	
WG514032CCV2	CCV	02/09/21 13:34	HG210118-2	.005		.00487	mg/L	97	90	110			
WG514032CCB2	CCB	02/09/21 13:35				U	mg/L		-0.0002	0.0002			
WG514032CCV3	CCV	02/09/21 13:45	HG210118-2	.005		.0048	mg/L	96	90	110			
WG514032CCB3	CCB	02/09/21 13:46				U	mg/L		-0.0002	0.0002			
L64021-02LFB	LFB	02/09/21 13:48	HG210208-5	.002002	U	.00189	mg/L	94	85	115			
L64021-02LFMD	LFMD	02/09/21 13:49	HG210208-5	.002002	U	.00185	mg/L	92	85	115	2	20	
WG514032CCV4	CCV	02/09/21 13:54	HG210118-2	.005		.00482	mg/L	96	90	110			
WG514032CCB4	CCB	02/09/21 13:55				U	mg/L		-0.0002	0.0002			

Molybdenum, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514377													
WG514377ICV	ICV	02/15/21 14:39	MS210115-2	.01992		.02027	mg/L	102	90	110			
WG514377ICB	ICB	02/15/21 14:41				U	mg/L		-0.00044	0.00044			
WG514377LFB	LFB	02/15/21 14:43	MS201228-2	.0501		.05017	mg/L	100	85	115			
L64002-03AS	AS	02/15/21 14:50	MS201228-2	.0501	.0332	.08327	mg/L	100	70	130			
L64002-03ASD	ASD	02/15/21 14:52	MS201228-2	.0501	.0332	.08271	mg/L	99	70	130	1	20	
WG514377CCV1	CCV	02/15/21 15:01	MS210212-2	.1002		.10095	mg/L	101	90	110			
WG514377CCB1	CCB	02/15/21 15:03				U	mg/L		-0.0006	0.0006			
WG514377CCV2	CCV	02/15/21 15:22	MS210212-2	.1002		.09983	mg/L	100	90	110			
WG514377CCB2	CCB	02/15/21 15:24				U	mg/L		-0.0006	0.0006			
WG514377CCV3	CCV	02/15/21 15:35	MS210212-2	.1002		.09782	mg/L	98	90	110			
WG514377CCB3	CCB	02/15/21 15:37				U	mg/L		-0.0006	0.0006			

Molybdenum, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514515													
WG514515ICV	ICV	02/17/21 15:38	MS210115-2	.01992		.01932	mg/L	97	90	110			
WG514515ICB	ICB	02/17/21 15:40				U	mg/L		-0.0006	0.0006			
WG514327LRB	LRB	02/17/21 15:41				U	mg/L		-0.00044	0.00044			
WG514327LFB	LFB	02/17/21 15:43	MS201228-2	.0501		.04761	mg/L	95	85	115			
L64144-02LFB	LFB	02/17/21 15:54	MS201228-2	.0501	.00058	.05068	mg/L	100	70	130			
L64144-02LFMD	LFMD	02/17/21 15:56	MS201228-2	.0501	.00058	.05134	mg/L	101	70	130	1	20	
WG514515CCV1	CCV	02/17/21 15:59	MS210212-2	.1002		.09742	mg/L	97	90	110			
WG514515CCB1	CCB	02/17/21 16:01				U	mg/L		-0.0006	0.0006			
WG514515CCV2	CCV	02/17/21 16:12	MS210212-2	.1002		.10043	mg/L	100	90	110			
WG514515CCB2	CCB	02/17/21 16:14				U	mg/L		-0.0006	0.0006			

Ensero Solutions

ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nitrate/Nitrite as N

M353.2 - H2SO4 preserved

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514532													
WG514532ICV	ICV	02/17/21 21:11	WI201117-3	2.416		2.401	mg/L	99	90	110			
WG514532ICB	ICB	02/17/21 21:13				U	mg/L		-0.02	0.02			
WG514534													
WG514534CCV1	CCV	02/17/21 21:58	WI210217-1	2		1.981	mg/L	99	90	110			
WG514534CCB1	CCB	02/17/21 22:00				U	mg/L		-0.02	0.02			
WG514534LFB	LFB	02/17/21 22:02	WI201001-11	2		1.901	mg/L	95	90	110			
L64002-01AS	AS	02/17/21 22:04	WI201001-11	2	.027	2.078	mg/L	103	90	110			
L64002-02DUP	DUP	02/17/21 22:07			2.48	2.471	mg/L				0	20	
WG514534CCV2	CCV	02/17/21 22:14	WI210217-1	2		1.985	mg/L	99	90	110			
WG514534CCB2	CCB	02/17/21 22:17				U	mg/L		-0.02	0.02			
WG514534CCV3	CCV	02/17/21 22:30	WI210217-1	2		1.985	mg/L	99	90	110			
WG514534CCB3	CCB	02/17/21 22:32				U	mg/L		-0.02	0.02			

Phosphorus, total

M365.1 - Auto Ascorbic Acid (digest)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514533													
WG514533ICV	ICV	02/17/21 21:37	WI201222-5	.65228		.664	mg/L	102	90	110			
WG514533ICB	ICB	02/17/21 21:40				U	mg/L		-0.01	0.01			
WG514464LRB	LRB	02/17/21 21:41				U	mg/L		-0.01	0.01			
WG514464LFB	LFB	02/17/21 21:42	WI210213-6	.5		.486	mg/L	97	90	110			
L64002-02LFM	LFM	02/17/21 21:48	WI210213-6	.5	U	.48	mg/L	96	90	110			
L64002-03DUP	DUP	02/17/21 21:50			U	U	mg/L				0	20	RA
WG514533CCV1	CCV	02/17/21 21:52	WI201222-3	.5		.488	mg/L	98	90	110			
WG514533CCB1	CCB	02/17/21 21:53				U	mg/L		-0.01	0.01			
WG514533CCV2	CCV	02/17/21 22:06	WI201222-3	.5		.491	mg/L	98	90	110			
WG514533CCB2	CCB	02/17/21 22:07				U	mg/L		-0.01	0.01			
WG514533CCV3	CCV	02/17/21 22:18	WI201222-3	.5		.493	mg/L	99	90	110			
WG514533CCB3	CCB	02/17/21 22:19				U	mg/L		-0.01	0.01			
WG514533CCV4	CCV	02/17/21 22:26	WI201222-3	.5		.498	mg/L	100	90	110			
WG514533CCB4	CCB	02/17/21 22:27				U	mg/L		-0.01	0.01			
WG514533CCV5	CCV	02/17/21 22:31	WI201222-3	.5		.494	mg/L	99	90	110			
WG514533CCB5	CCB	02/17/21 22:33				U	mg/L		-0.01	0.01			

Ensero Solutions

ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Potassium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513980													
WG513980ICV	ICV	02/08/21 13:30	II210127-1	20		19.64	mg/L	98	95	105			
WG513980ICB	ICB	02/08/21 13:36				U	mg/L		-0.6	0.6			
WG513980PQV	PQV	02/08/21 13:39	II210204-2	1.004		.98	mg/L	98	70	130			
WG513980SIC	SIC	02/08/21 13:42	II210118-1	1.004		1	mg/L	100	80	120			
WG513980LFB	LFB	02/08/21 13:48	II210129-2	99.96847		92.66	mg/L	93	85	115			
L64002-04AS	AS	02/08/21 14:10	II210129-2	99.96847	5.31	104.8	mg/L	100	85	115			
L64002-04ASD	ASD	02/08/21 14:13	II210129-2	99.96847	5.31	105.6	mg/L	100	85	115	1	20	
WG513980CCV1	CCV	02/08/21 14:19	II210125-2	10		9.8	mg/L	98	90	110			
WG513980CCB1	CCB	02/08/21 14:22				U	mg/L		-0.6	0.6			
WG513980CCV2	CCV	02/08/21 14:56	II210125-2	10		9.64	mg/L	96	90	110			
WG513980CCB2	CCB	02/08/21 14:59				U	mg/L		-0.6	0.6			
WG513980CCV3	CCV	02/08/21 15:18	II210125-2	10		9.55	mg/L	96	90	110			
WG513980CCB3	CCB	02/08/21 15:21				U	mg/L		-0.6	0.6			

Residue, Filterable (TDS) @180C

SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513760													
WG513760PBW	PBW	02/02/21 15:30				U	mg/L		-20	20			
WG513760LCSW	LCSW	02/02/21 15:32	PCN62893	1000		992	mg/L	99	80	120			
L64005-03DUP	DUP	02/02/21 16:30			588	590	mg/L				0	10	

Residue, Non-Filterable (TSS) @105C

SM2540D

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513809													
WG513809PBW	PBW	02/03/21 12:25				U	mg/L		-5	5			
WG513809LCSW	LCSW	02/03/21 12:26	PCN62893	100		94	mg/L	94	80	120			
L64002-01DUP	DUP	02/03/21 12:48			U	U	mg/L				0	10	RA
L64021-04DUP	DUP	02/03/21 13:09			U	U	mg/L				0	10	RA

Selenium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514377													
WG514377ICV	ICV	02/15/21 14:39	MS210115-2	.05		.04743	mg/L	95	90	110			
WG514377ICB	ICB	02/15/21 14:41				U	mg/L		-0.00022	0.00022			
WG514377LFB	LFB	02/15/21 14:43	MS201228-2	.05		.04767	mg/L	95	85	115			
L64002-03AS	AS	02/15/21 14:50	MS201228-2	.05	.00082	.0527	mg/L	104	70	130			
L64002-03ASD	ASD	02/15/21 14:52	MS201228-2	.05	.00082	.05264	mg/L	104	70	130	0	20	
WG514377CCV1	CCV	02/15/21 15:01	MS210212-2	.25		.2487	mg/L	99	90	110			
WG514377CCB1	CCB	02/15/21 15:03				.00011	mg/L		-0.0003	0.0003			
WG514377CCV2	CCV	02/15/21 15:22	MS210212-2	.25		.24308	mg/L	97	90	110			
WG514377CCB2	CCB	02/15/21 15:24				.00016	mg/L		-0.0003	0.0003			
WG514377CCV3	CCV	02/15/21 15:35	MS210212-2	.25		.23785	mg/L	95	90	110			
WG514377CCB3	CCB	02/15/21 15:37				.00013	mg/L		-0.0003	0.0003			

Ensero Solutions

ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Selenium, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514424													
WG514424ICV	ICV	02/16/21 11:00	MS2010115-2	.05		.04971	mg/L	99	90	110			
WG514424ICB	ICB	02/16/21 11:02				U	mg/L		-0.0003	0.0003			
WG514327LRB	LRB	02/16/21 11:04				U	mg/L		-0.00022	0.00022			
WG514327LFB	LFB	02/16/21 11:06	MS201228-2	.05		.04731	mg/L	95	85	115			
L64144-02LFM	LFM	02/16/21 11:18	MS201228-2	.05	.00013	.04975	mg/L	99	70	130			
L64144-02LFMD	LFMD	02/16/21 11:20	MS201228-2	.05	.00013	.04893	mg/L	98	70	130	2	20	
WG514424CCV1	CCV	02/16/21 11:22	MS210212-2	.25		.24888	mg/L	100	90	110			
WG514424CCB1	CCB	02/16/21 11:23				.00014	mg/L		-0.0003	0.0003			
WG514424CCV2	CCV	02/16/21 11:43	MS210212-2	.25		.25038	mg/L	100	90	110			
WG514424CCB2	CCB	02/16/21 11:45				U	mg/L		-0.0003	0.0003			
WG514424CCV3	CCV	02/16/21 11:57	MS210212-2	.25		.24641	mg/L	99	90	110			
WG514424CCB3	CCB	02/16/21 11:59				U	mg/L		-0.0003	0.0003			

Silver, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514377													
WG514377ICV	ICV	02/15/21 14:39	MS2010115-2	.02004		.02147	mg/L	107	90	110			
WG514377ICB	ICB	02/15/21 14:41				U	mg/L		-0.00022	0.00022			
WG514377LFB	LFB	02/15/21 14:43	MS201228-2	.01002		.01055	mg/L	105	85	115			
L64002-03AS	AS	02/15/21 14:50	MS201228-2	.01002	U	.00981	mg/L	98	70	130			
L64002-03ASD	ASD	02/15/21 14:52	MS201228-2	.01002	U	.00971	mg/L	97	70	130	1	20	
WG514377CCV1	CCV	02/15/21 15:01	MS210212-2	.02505		.0261	mg/L	104	90	110			
WG514377CCB1	CCB	02/15/21 15:03				U	mg/L		-0.0003	0.0003			
WG514377CCV2	CCV	02/15/21 15:22	MS210212-2	.02505		.02609	mg/L	104	90	110			
WG514377CCB2	CCB	02/15/21 15:24				U	mg/L		-0.0003	0.0003			
WG514377CCV3	CCV	02/15/21 15:35	MS210212-2	.02505		.0256	mg/L	102	90	110			
WG514377CCB3	CCB	02/15/21 15:37				U	mg/L		-0.0003	0.0003			

Silver, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514424													
WG514424ICV	ICV	02/16/21 11:00	MS2010115-2	.02004		.01878	mg/L	94	90	110			
WG514424ICB	ICB	02/16/21 11:02				U	mg/L		-0.0003	0.0003			
WG514327LRB	LRB	02/16/21 11:04				U	mg/L		-0.00022	0.00022			
WG514327LFB	LFB	02/16/21 11:06	MS201228-2	.01002		.01001	mg/L	100	85	115			
L64144-02LFM	LFM	02/16/21 11:18	MS201228-2	.01002	U	.00971	mg/L	97	70	130			
L64144-02LFMD	LFMD	02/16/21 11:20	MS201228-2	.01002	U	.00977	mg/L	98	70	130	1	20	
WG514424CCV1	CCV	02/16/21 11:22	MS210212-2	.02505		.02552	mg/L	102	90	110			
WG514424CCB1	CCB	02/16/21 11:23				U	mg/L		-0.0003	0.0003			
WG514424CCV2	CCV	02/16/21 11:43	MS210212-2	.02505		.02576	mg/L	103	90	110			
WG514424CCB2	CCB	02/16/21 11:45				U	mg/L		-0.0003	0.0003			
WG514424CCV3	CCV	02/16/21 11:57	MS210212-2	.02505		.02545	mg/L	102	90	110			
WG514424CCB3	CCB	02/16/21 11:59				U	mg/L		-0.0003	0.0003			

Ensero Solutions

ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sodium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513980													
WG513980ICV	ICV	02/08/21 13:30	II210127-1	100		97.56	mg/L	98	95	105			
WG513980ICB	ICB	02/08/21 13:36				U	mg/L		-0.6	0.6			
WG513980PQV	PQV	02/08/21 13:39	II210204-2	.998		1	mg/L	100	70	130			
WG513980SIC	SIC	02/08/21 13:42	II210118-1	.998		1.05	mg/L	105	80	120			
WG513980LFB	LFB	02/08/21 13:48	II210129-2	100.0141		90.19	mg/L	90	85	115			
L64002-04AS	AS	02/08/21 14:10	II210129-2	100.0141	57.9	150.2	mg/L	92	85	115			
L64002-04ASD	ASD	02/08/21 14:13	II210129-2	100.0141	57.9	154.3	mg/L	96	85	115	3	20	
WG513980CCV1	CCV	02/08/21 14:19	II210125-2	50		48.4	mg/L	97	90	110			
WG513980CCB1	CCB	02/08/21 14:22				U	mg/L		-0.6	0.6			
WG513980CCV2	CCV	02/08/21 14:56	II210125-2	50		47.88	mg/L	96	90	110			
WG513980CCB2	CCB	02/08/21 14:59				U	mg/L		-0.6	0.6			
WG513980CCV3	CCV	02/08/21 15:18	II210125-2	50		47.48	mg/L	95	90	110			
WG513980CCB3	CCB	02/08/21 15:21				U	mg/L		-0.6	0.6			

Sulfate

D516-02/-07/-11 - Turbidimetric

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513902													
WG513902ICB	ICB	02/04/21 11:41				U	mg/L		-3	3			
WG513902ICV	ICV	02/04/21 11:41	WI210121-1	20		20.5	mg/L	103	90	110			
WG513902CCV1	CCV	02/04/21 16:08	WI210121-2	25		25.8	mg/L	103	90	110			
WG513902CCB1	CCB	02/04/21 16:08				U	mg/L		-3	3			
WG513902LFB	LFB	02/04/21 16:08	WI210105-3	10		9.7	mg/L	97	90	110			
WG513902CCV2	CCV	02/04/21 16:10	WI210121-2	25		25.4	mg/L	102	90	110			
WG513902CCB2	CCB	02/04/21 16:10				U	mg/L		-3	3			
WG513902CCV3	CCV	02/04/21 16:11	WI210121-2	25		24.7	mg/L	99	90	110			
WG513902CCB3	CCB	02/04/21 16:11				U	mg/L		-3	3			
WG513902CCV4	CCV	02/04/21 16:13	WI210121-2	25		25.8	mg/L	103	90	110			
WG513902CCB4	CCB	02/04/21 16:13				U	mg/L		-3	3			
WG513902CCV5	CCV	02/04/21 16:16	WI210121-2	25		25.1	mg/L	100	90	110			
WG513902CCB5	CCB	02/04/21 16:16				U	mg/L		-3	3			
L64002-01DUP	DUP	02/04/21 16:18			37.8	37.4	mg/L				1	20	RA
WG513902CCV6	CCV	02/04/21 16:20	WI210121-2	25		25.7	mg/L	103	90	110			
WG513902CCB6	CCB	02/04/21 16:20				U	mg/L		-3	3			
WG513902CCV7	CCV	02/04/21 16:22	WI210121-2	25		24.7	mg/L	99	90	110			
WG513902CCB7	CCB	02/04/21 16:22				U	mg/L		-3	3			
L64002-02AS	AS	02/04/21 16:28	SO4TURB20X	10	232	229.3	mg/L	-27	90	110			M3
WG513902CCV8	CCV	02/04/21 16:32	WI210121-2	25		24.8	mg/L	99	90	110			
WG513902CCB8	CCB	02/04/21 16:32				U	mg/L		-3	3			
WG513902CCV9	CCV	02/04/21 16:33	WI210121-2	25		24.9	mg/L	100	90	110			
WG513902CCB9	CCB	02/04/21 16:33				U	mg/L		-3	3			
WG513902CCV10	CCV	02/04/21 16:44	WI210121-2	25		25.1	mg/L	100	90	110			
WG513902CCB10	CCB	02/04/21 16:44				U	mg/L		-3	3			
WG513902CCV11	CCV	02/04/21 16:45	WI210121-2	25		24.9	mg/L	100	90	110			
WG513902CCB11	CCB	02/04/21 16:45				U	mg/L		-3	3			

Ensero Solutions

ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Thallium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514377													
WG514377ICV	ICV	02/15/21 14:39	MS210115-2	.05		.04867	mg/L	97	90	110			
WG514377ICB	ICB	02/15/21 14:41				U	mg/L		-0.00022	0.00022			
WG514377LFB	LFB	02/15/21 14:43	MS201228-2	.0501		.04945	mg/L	99	85	115			
L64002-03AS	AS	02/15/21 14:50	MS201228-2	.0501	U	.05109	mg/L	102	70	130			
L64002-03ASD	ASD	02/15/21 14:52	MS201228-2	.0501	U	.04994	mg/L	100	70	130	2	20	
WG514377CCV1	CCV	02/15/21 15:01	MS210212-2	.1002		.09874	mg/L	99	90	110			
WG514377CCB1	CCB	02/15/21 15:03				U	mg/L		-0.0003	0.0003			
WG514377CCV2	CCV	02/15/21 15:22	MS210212-2	.1002		.0979	mg/L	98	90	110			
WG514377CCB2	CCB	02/15/21 15:24				U	mg/L		-0.0003	0.0003			
WG514377CCV3	CCV	02/15/21 15:35	MS210212-2	.1002		.09593	mg/L	96	90	110			
WG514377CCB3	CCB	02/15/21 15:37				U	mg/L		-0.0003	0.0003			

Thallium, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514424													
WG514424ICV	ICV	02/16/21 11:00	MS210115-2	.05		.04812	mg/L	96	90	110			
WG514424ICB	ICB	02/16/21 11:02				U	mg/L		-0.0003	0.0003			
WG514327LRB	LRB	02/16/21 11:04				U	mg/L		-0.00022	0.00022			
WG514327LFB	LFB	02/16/21 11:06	MS201228-2	.0501		.04672	mg/L	93	85	115			
L64144-02LFM	LFM	02/16/21 11:18	MS201228-2	.0501	U	.04707	mg/L	94	70	130			
L64144-02LFMD	LFMD	02/16/21 11:20	MS201228-2	.0501	U	.0473	mg/L	94	70	130	0	20	
WG514424CCV1	CCV	02/16/21 11:22	MS210212-2	.1002		.09645	mg/L	96	90	110			
WG514424CCB1	CCB	02/16/21 11:23				U	mg/L		-0.0003	0.0003			
WG514424CCV2	CCV	02/16/21 11:43	MS210212-2	.1002		.09959	mg/L	99	90	110			
WG514424CCB2	CCB	02/16/21 11:45				U	mg/L		-0.0003	0.0003			
WG514424CCV3	CCV	02/16/21 11:57	MS210212-2	.1002		.09516	mg/L	95	90	110			
WG514424CCB3	CCB	02/16/21 11:59				U	mg/L		-0.0003	0.0003			

Uranium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514377													
WG514377ICV	ICV	02/15/21 14:39	MS210115-2	.05		.04881	mg/L	98	90	110			
WG514377ICB	ICB	02/15/21 14:41				U	mg/L		-0.00022	0.00022			
WG514377LFB	LFB	02/15/21 14:43	MS201228-2	.05		.04821	mg/L	96	85	115			
L64002-03AS	AS	02/15/21 14:50	MS201228-2	.05	.966	1.00389	mg/L	76	70	130			
L64002-03ASD	ASD	02/15/21 14:52	MS201228-2	.05	.966	1.00096	mg/L	70	70	130	0	20	
WG514377CCV1	CCV	02/15/21 15:01	MS210212-2	.1		.09976	mg/L	100	90	110			
WG514377CCB1	CCB	02/15/21 15:03				U	mg/L		-0.0003	0.0003			
WG514377CCV2	CCV	02/15/21 15:22	MS210212-2	.1		.09782	mg/L	98	90	110			
WG514377CCB2	CCB	02/15/21 15:24				U	mg/L		-0.0003	0.0003			
WG514377CCV3	CCV	02/15/21 15:35	MS210212-2	.1		.09584	mg/L	96	90	110			
WG514377CCB3	CCB	02/15/21 15:37				U	mg/L		-0.0003	0.0003			

Ensero Solutions

ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Uranium, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514424													
WG514424ICV	ICV	02/16/21 11:00	MS210115-2	.05		.04939	mg/L	99	90	110			
WG514424ICB	ICB	02/16/21 11:02				U	mg/L		-0.0003	0.0003			
WG514327LRB	LRB	02/16/21 11:04				U	mg/L		-0.00022	0.00022			
WG514327LFB	LFB	02/16/21 11:06	MS201228-2	.05		.04599	mg/L	92	85	115			
L64144-02LFM	LFM	02/16/21 11:18	MS201228-2	.05	U	.04968	mg/L	99	70	130			
L64144-02LFMD	LFMD	02/16/21 11:20	MS201228-2	.05	U	.04966	mg/L	99	70	130	0	20	
WG514424CCV1	CCV	02/16/21 11:22	MS210212-2	.1		.097	mg/L	97	90	110			
WG514424CCB1	CCB	02/16/21 11:23				U	mg/L		-0.0003	0.0003			
WG514424CCV2	CCV	02/16/21 11:43	MS210212-2	.1		.10085	mg/L	101	90	110			
WG514424CCB2	CCB	02/16/21 11:45				U	mg/L		-0.0003	0.0003			
WG514424CCV3	CCV	02/16/21 11:57	MS210212-2	.1		.09659	mg/L	97	90	110			
WG514424CCB3	CCB	02/16/21 11:59				U	mg/L		-0.0003	0.0003			

Zinc, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513980													
WG513980ICV	ICV	02/08/21 13:30	II210127-1	2		1.916	mg/L	96	95	105			
WG513980ICB	ICB	02/08/21 13:36				U	mg/L		-0.06	0.06			
WG513980PQV	PQV	02/08/21 13:39	II210204-2	.0502		.053	mg/L	106	70	130			
WG513980SIC	SIC	02/08/21 13:42	II210118-1	.1004		.095	mg/L	95	80	120			
WG513980LFB	LFB	02/08/21 13:48	II210129-2	.50075		.467	mg/L	93	85	115			
L64002-04AS	AS	02/08/21 14:10	II210129-2	.50075	U	.496	mg/L	99	85	115			
L64002-04ASD	ASD	02/08/21 14:13	II210129-2	.50075	U	.503	mg/L	100	85	115	1	20	
WG513980CCV1	CCV	02/08/21 14:19	II210125-2	1		.957	mg/L	96	90	110			
WG513980CCB1	CCB	02/08/21 14:22				U	mg/L		-0.06	0.06			
WG513980CCV2	CCV	02/08/21 14:56	II210125-2	1		.964	mg/L	96	90	110			
WG513980CCB2	CCB	02/08/21 14:59				U	mg/L		-0.06	0.06			
WG513980CCV3	CCV	02/08/21 15:18	II210125-2	1		.949	mg/L	95	90	110			
WG513980CCB3	CCB	02/08/21 15:21				U	mg/L		-0.06	0.06			

Ensero Solutions

ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Zinc, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513924													
WG513924ICV	ICV	02/06/21 0:51	II210119-2	2		1.899	mg/L	95	95	105			
WG513924ICB	ICB	02/06/21 0:57				U	mg/L		-0.06	0.06			
WG513924PQV	PQV	02/06/21 1:01	II210204-2	.0502		.042	mg/L	84	70	130			
WG513924SIC	SIC	02/06/21 1:04	II210119-1	.1004		.088	mg/L	88	80	120			
WG513885LRB	LRB	02/06/21 1:10				U	mg/L		-0.044	0.044			
WG513885LFB	LFB	02/06/21 1:14	II210129-2	.50075		.52	mg/L	104	85	115			
L63972-06LFM	LFM	02/06/21 1:37	II210129-2	.50075	U	.509	mg/L	102	70	130			
L63972-06LFMD	LFMD	02/06/21 1:40	II210129-2	.50075	U	.508	mg/L	101	70	130	0	20	
WG513924CCV1	CCV	02/06/21 1:43	II210204-3	1		.966	mg/L	97	90	110			
WG513924CCB1	CCB	02/06/21 1:46				U	mg/L		-0.06	0.06			
WG513924CCV2	CCV	02/06/21 2:22	II210204-3	1		.973	mg/L	97	90	110			
WG513924CCB2	CCB	02/06/21 2:25				U	mg/L		-0.06	0.06			
L64021-03LFM	LFM	02/06/21 2:32	II210129-2	.50075	U	.547	mg/L	109	70	130			
L64021-03LFMD	LFMD	02/06/21 2:35	II210129-2	.50075	U	.54	mg/L	108	70	130	1	20	
WG513924CCV3	CCV	02/06/21 2:48	II210204-3	1		.981	mg/L	98	90	110			
WG513924CCB3	CCB	02/06/21 2:51				U	mg/L		-0.06	0.06			

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ACZ Project ID: **L64002**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L64002-01	WG514058	Chloride	SM4500CI-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG514053	Cyanide, WAD	SM4500-CN I- distillation	DJ	Sample dilution required due to insufficient sample.
	WG514242		SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG514515	Molybdenum, total	M200.8 ICP-MS	DB	Sample required dilution due to low bias result.
	WG514533	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG513809	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG513902	Sulfate	D516-02/-07/-11 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L64002-02	WG514242	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG514533	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG513809	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG513902	Sulfate	D516-02/-07/-11 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L64002-03	WG514242	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG514533	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG513809	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG513902	Sulfate	D516-02/-07/-11 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

Ensero Solutions

ACZ Project ID: **L64002**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L64002-04	WG514242	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG514533	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG513809	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG513902	Sulfate	D516-02/-07/-11 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-00

Locator:

ACZ Sample ID: **L64002-01**

Date Sampled: 01/29/21 11:21

Date Received: 02/02/21

Sample Matrix: Groundwater

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	02/25/21 12:21		0.18			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	02/18/21 0:00		4.9	2.5	6.7	pCi/L	*	fdw
Gross Beta	02/18/21 0:00		5.5	2.7	5.2	pCi/L		fdw

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	02/15/21 0:24		0.27	0.1	0.09	pCi/L		amk

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	02/17/21 0:05		0.18	0.13	0.15	pCi/L	*	djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	02/23/21 15:19		0.77	1.7	3.9	pCi/L	*	fdw

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-0

Locator:

ACZ Sample ID: **L64002-02**

Date Sampled: 01/29/21 12:58

Date Received: 02/02/21

Sample Matrix: Groundwater

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	02/25/21 12:21		0			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	02/18/21 0:00		370	22	7	pCi/L	*	fdw
Gross Beta	02/18/21 0:00		150	7.7	9.4	pCi/L		fdw

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	02/15/21 0:25		0.18	0.09	0.09	pCi/L		amk

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	02/17/21 0:07		-0.02	0.14	0.26	pCi/L	*	djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	02/23/21 15:19		0.44	1.2	3.1	pCi/L	*	fdw

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-19

Locator:

ACZ Sample ID: **L64002-03**

Date Sampled: 01/29/21 15:24

Date Received: 02/02/21

Sample Matrix: Groundwater

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	02/25/21 12:21		0.58			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	02/18/21 0:00		460	25	8.7	pCi/L	*	fdw
Gross Beta	02/18/21 0:00		210	9.1	6.8	pCi/L		fdw

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	02/15/21 0:27		0.7	0.14	0.15	pCi/L		amk

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	02/17/21 0:08		0.58	0.17	0.15	pCi/L	*	djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	02/23/21 15:19		1.5	1.3	3.1	pCi/L	*	fdw

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-07

Locator:

ACZ Sample ID: **L64002-04**

Date Sampled: 01/29/21 16:25

Date Received: 02/02/21

Sample Matrix: Groundwater

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	02/25/21 12:21		6.3			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	02/18/21 0:00		920	35	8.4	pCi/L	*	fdw
Gross Beta	02/18/21 0:00		400	12	8.6	pCi/L		fdw

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	02/15/21 0:28		0.64	0.12	0.11	pCi/L		amk

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	02/17/21 0:10		6.3	0.61	0.32	pCi/L	*	djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	02/23/21 15:19		2.9	2.4	5	pCi/L	*	fdw

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Error(+/-)</i>	Calculated sample specific uncertainty
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>LCL</i>	Lower Control Limit, in % (except for LCSS, mg/Kg)
<i>LLD</i>	Calculated sample specific Lower Limit of Detection
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
<i>RER</i>	Relative Error Ratio, calculation used for Dup. QC taking into account the error factor.
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>UCL</i>	Upper Control Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>DUP</i>	Sample Duplicate	<i>MS/MSD</i>	Matrix Spike/Matrix Spike Duplicate
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBS</i>	Prep Blank - Soil
<i>LCSW</i>	Laboratory Control Sample - Water	<i>PBW</i>	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Matrix Spikes	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

H	Analysis exceeded method hold time.
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Method Prefix Reference

M	EPA methodology, including those under SDWA, CWA, and RCRA
SM	Standard Methods for the Examination of Water and Wastewater.
D	ASTM
RP	DOE
ESM	DOE/ESM

Comments

- (1) Solid matrices are reported on a dry weight basis.
- (2) Preparation method: "Method" indicates preparation defined in analytical method.
- (3) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

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ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alpha		M900.0										Units: pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG514121																
L64081-01DUP	DUP-RPD	02/18/21			5.9	2.8	12	5.7	2.8	7.7				3	20	
L64081-01MSA	MS	02/18/21	PCN62436	100	5.9	2.8	12	49	7.6	6	43	67	144			M2
WG514121LCSWA	LCSW	02/18/21	PCN62436	66.67				77	6.1	0.83	116	67	144			
WG514121PBW	PBW	02/18/21						.02	0.44	0.72			1.44			
L64002-01DUP	DUP-RPD	02/18/21			4.9	2.5	6.7	4.1	2.2	11				18	20	

Beta		M900.0										Units: pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG514121																
L64081-01DUP	DUP-RPD	02/18/21			7.8	2.9	12	10	3.1	6.8				25	20	RG
L64002-01DUP	DUP-RPD	02/18/21			5.5	2.7	5.2	5.5	2.7	11				0	20	
L64002-01MSB	MS	02/18/21	RC200602-10	99.9	5.5	2.7	5.2	100	6.6	9	95	82	122			
L64081-01DUP	DUP-RER	02/18/21			7.8	2.9	12	10	3.1	6.8				0.52	2	
WG514121LCSWB	LCSW	02/18/21	RC200602-10	66.6				63	4.1	1.7	95	82	122			
WG514121PBW	PBW	02/18/21						-.36	1.7	1.8			3.6			

Radium 226, dissolved		M903.1										Units: pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG513951																
WG513951PBW	PBW	02/15/21						-.06	0.09	0.1			0.2			
WG513951LCSW	LCSW	02/15/21	PCN62879	20				25	0.67	0.12	125	43	148			
L63971-01DUP	DUP-RPD	02/15/21			0.36	0.1	0.13	.33	0.16	0.18				9	20	
L63994-01MS	MS	02/15/21	PCN62879	20	0.06	0.07	0.08	17	0.45	0.07	85	43	148			
L64012-01DUP	DUP-RPD	02/15/21			1.5	0.13	0.04	1.5	0.21	0.12				0	20	

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ACZ Project ID: **L64002**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Radium 226, total

M903.1

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG514126																
WG514126PBW	PBW	02/17/21						-.03	0.08	0.1			0.2			
WG514126LCSW	LCSW	02/17/21	PCN61539	20				16	0.57	0.11	80	43	148			
L64002-01DUP	DUP-RPD	02/17/21			0.18	0.13	0.15	.14	0.11	0.11				25	20	RG
L64002-01DUP	DUP-RER	02/17/21			0.18	0.13	0.15	.14	0.11	0.11				0.23	2	
L64127-02DUP	DUP-RPD	02/17/21			4.9	0.36	0.39	5.5	0.43	0.1				12	20	
L64002-02MS	MS	02/17/21	PCN61539	20	-0.02	0.14	0.26	17	0.55	0.06	85	43	148			

Radium 228, total

M904.0

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG514453																
L63994-03DUP	DUP-RPD	02/23/21			0.73	1.1	2.5	.32	1.2	2.8				78	20	RG
L63994-03DUP	DUP-RER	02/23/21			0.73	1.1	2.5	.32	1.2	2.8				0.25	2	
L64002-01MS	MS	02/23/21	PCN61541	19.14	0.77	1.7	3.9	17	3.9	7.4	85	47	123			
WG514453LCSW	LCSW	02/23/21	PCN61541	9.19				6.9	1.9	1.6	75	47	123			
WG514453PBW	PBW	02/23/21						-.41	0.96	1			2			
L64183-02DUP	DUP-RPD	02/23/21			3.3	0.86	0.74	3.2	0.64	0.53				3	20	

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ACZ Project ID: **L64002**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L64002-01	WG514121	Gross Alpha	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG514126	Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG514453	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L64002-02	WG514121	Gross Alpha	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG514126	Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG514453	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L64002-03	WG514121	Gross Alpha	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG514126	Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG514453	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L64002-04	WG514121	Gross Alpha	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG514126	Radium 226, total	M903.1	D1	Sample required dilution due to matrix.
			M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG514453	Radium 228, total	M904.0	D1	Sample required dilution due to matrix.
			M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.

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ACZ Project ID: **L64002**

No certification qualifiers associated with this analysis

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3100-PO205

ACZ Project ID: L64002
Date Received: 02/02/2021 12:03
Received By:
Date Printed: 2/3/2021

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?	☐	☐	☒
2) Is the Chain of Custody form or other directive shipping papers present?	☒	☐	☐
3) Does this project require special handling procedures such as CLP protocol?	☐	☒	☐
4) Are any samples NRC licensable material?	☐	☐	☒
5) If samples are received past hold time, proceed with requested short hold time analyses?	☒	☐	☐
6) Is the Chain of Custody form complete and accurate?	☒	☐	☐
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?	☐	☒	☐

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	☒	☐	☐
9) Are all labels on containers and are they intact and legible?	☒	☐	☐
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	☒	☐	☐
11) For preserved bottle types, was the pH checked and within limits? ¹	☒	☐	☐
12) Is there sufficient sample volume to perform all requested work?	☐	☒	☐
L64002-04 Container B2370840 (GREEN CUBE): There is limited supply in this container.			
13) Is the custody seal intact on all containers?	☐	☐	☒
14) Are samples that require zero headspace acceptable?	☐	☐	☒
15) Are all sample containers appropriate for analytical requirements?	☒	☐	☐
16) Is there an Hg-1631 trip blank present?	☐	☐	☒
17) Is there a VOA trip blank present?	☐	☐	☒
18) Were all samples received within hold time?	☒	☐	☐

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
6565	4.9	<=6.0	15	N/A

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

Ensero Solutions
3100-PO205

ACZ Project ID: L64002

Date Received: 02/02/2021 12:03

Received By:

Date Printed: 2/3/2021

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

February 22, 2021

Report to:

Braden Richards
Ensero Solutions
104-411 Downey Rd
Saskatoon, CANADA

Bill to:

Lori Simpson
Ensero Solutions
131 E. Lincoln Ave Ste. 200
Fort Collins, CO 80524

cc: Ensero/Alexco Importer, Evan Valencia

Project ID: 3100-PO205

ACZ Project ID: L63972

Braden Richards:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 29, 2021. This project has been assigned to ACZ's project number, L63972. Please reference this number in all future inquiries.

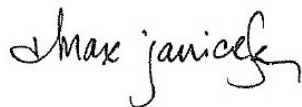
All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L63972. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after March 24, 2021. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.



Max Janicek has reviewed and
approved this report.



Ensero Solutions

February 22, 2021

Project ID: 3100-PO205

ACZ Project ID: L63972

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 7 miscellaneous samples from Ensero Solutions on January 29, 2021. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L63972. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were performed within EPA recommended holding times.

Sample Analysis

These samples were analyzed for inorganic, radiochemistry parameters. The individual methods are referenced on both the ACZ invoice and the analytical reports. The extended qualifier reports may contain footnotes qualifying specific elements due to QC failures. In addition, the following has been noted with this specific project:

The below is from WG513604

Qualifier: N1

Applies to:

L63972-01/TOTAL DISSOLVED SOLIDS

L63972-02/TOTAL DISSOLVED SOLIDS

L63972-03/TOTAL DISSOLVED SOLIDS

Oven range is 80 C to 91 C. Over the weekend, the oven had a minor exceedance hit in oven temperature. When the oven temperature was checked on Monday 2/1/21, the max temp read at 102.6 C. The WG was removed from the oven on 2/1/21 when the oven was back in range. The WG was examined and there was no splattering of samples.

The below is from WG513635

Qualifier: N1

Applies to:

L63972-04/TOTAL DISSOLVED SOLIDS

L63972-05/TOTAL DISSOLVED SOLIDS

L63972-06/TOTAL DISSOLVED SOLIDS

L63972-07/TOTAL DISSOLVED SOLIDS

Oven range is 80 C to 91 C. Over the weekend, the oven had a minor exceedance in oven temperature. When the oven temperature was checked on Monday 2/1/21, the max temp read at 102.6 C. The WG was removed from the oven on 2/1/21 when the oven was back in range. The WG was examined and there was no splattering of samples.

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-LLHG

ACZ Sample ID: **L63972-01**

Date Sampled: 01/27/21 10:50

Date Received: 01/29/21

Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						02/05/21 5:26	wtc
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								02/11/21 11:43	cbj
Total Hot Plate Digestion	M200.2 ICP-MS								02/05/21 11:30	mfm
Total Hot Plate Digestion	M200.2 ICP								02/04/21 15:59	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-LLHG

ACZ Sample ID: **L63972-01**

Date Sampled: 01/27/21 10:50

Date Received: 01/29/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/03/21 20:52	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/06/21 1:17	jlw
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/12/21 15:36	mfm
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/10/21 9:00	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	0.00027	B		mg/L	0.0002	0.001	02/11/21 14:53	mfm
Arsenic, total	M200.8 ICP-MS	1	0.00020	B		mg/L	0.0002	0.001	02/10/21 9:00	mfm
Boron, dissolved	M200.7 ICP	1	0.048	B		mg/L	0.02	0.1	02/03/21 20:52	kja
Boron, total	M200.7 ICP	1	0.032	B		mg/L	0.02	0.1	02/08/21 11:36	jlw
Calcium, dissolved	M200.7 ICP	1	45.3			mg/L	0.1	0.5	02/03/21 20:52	kja
Chromium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/03/21 20:52	kja
Chromium, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 14:55	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/04/21 20:56	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/06/21 1:17	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U	*	mg/L	0.06	0.15	02/03/21 20:52	kja
Iron, total	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	02/06/21 1:17	jlw
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/11/21 14:53	mfm
Lead, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/10/21 9:00	mfm
Magnesium, dissolved	M200.7 ICP	1	14.8			mg/L	0.2	1	02/03/21 20:52	kja
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/03/21 20:52	kja
Manganese, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/06/21 1:17	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/11/21 10:29	llr
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/09/21 13:29	llr
Molybdenum, dissolved	M200.8 ICP-MS	1	0.00722			mg/L	0.0002	0.0005	02/11/21 14:53	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.00729			mg/L	0.0002	0.0005	02/12/21 11:42	mfm
Potassium, dissolved	M200.7 ICP	1	2.49			mg/L	0.2	1	02/03/21 20:52	kja
Selenium, dissolved	M200.8 ICP-MS	1	0.00040			mg/L	0.0001	0.00025	02/12/21 15:36	mfm
Selenium, total	M200.8 ICP-MS	1	0.00043			mg/L	0.0001	0.00025	02/10/21 9:00	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	02/11/21 14:53	mfm
Silver, total	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	02/10/21 9:00	mfm
Sodium, dissolved	M200.7 ICP	1	39.7			mg/L	0.2	1	02/03/21 20:52	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/11/21 14:53	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/10/21 9:00	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.0437			mg/L	0.0001	0.0005	02/11/21 14:53	mfm
Uranium, total	M200.8 ICP-MS	1	0.0448			mg/L	0.0001	0.0005	02/10/21 9:00	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/03/21 20:52	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/06/21 1:17	jlw

Ensero Solutions

Project ID: 3100-PO205
Sample ID: SW-LLHG

ACZ Sample ID: **L63972-01**

Date Sampled: 01/27/21 10:50

Date Received: 01/29/21

Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	92.0			mg/L	2	20	01/30/21 0:00	eep
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	01/30/21 0:00	eep
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	01/30/21 0:00	eep
Total Alkalinity		1	92.0			mg/L	2	20	01/30/21 0:00	eep
Cation-Anion Balance	Calculation									
Cation-Anion Balance			1.9			%			02/22/21 0:00	calc
Sum of Anions			5.1			meq/L			02/22/21 0:00	calc
Sum of Cations			5.3			meq/L			02/22/21 0:00	calc
Chloride	SM4500Cl-E	1	56.1			mg/L	0.5	2	02/18/21 18:40	syw
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	02/07/21 0:35	pjb
Fluoride	SM4500F-C	1	0.33	B		mg/L	0.11	0.35	02/17/21 13:08	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	<0.02	U	*	mg/L	0.02	0.1	02/13/21 0:00	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	02/22/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	02/12/21 0:44	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	314		*	mg/L	20	40	01/29/21 15:07	scd
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	01/29/21 20:26	jck
Sulfate	D516-02/-07/-11 - Turbidimetric	5	81.5			mg/L	5	25	02/04/21 13:18	ttg
TDS (calculated)	Calculation		296			mg/L			02/22/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.06						02/22/21 0:00	calc

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-ARH

ACZ Sample ID: **L63972-02**

Date Sampled: 01/27/21 11:28

Date Received: 01/29/21

Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						02/05/21 6:12	wtc
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								02/11/21 11:52	cbj
Total Hot Plate Digestion	M200.2 ICP-MS								02/05/21 11:30	mfm
Total Hot Plate Digestion	M200.2 ICP								02/04/21 16:11	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-ARH

ACZ Sample ID: **L63972-02**

Date Sampled: 01/27/21 11:28

Date Received: 01/29/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/03/21 20:55	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/06/21 1:20	jlw
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/12/21 15:38	mfm
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/10/21 9:02	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	0.00037	B		mg/L	0.0002	0.001	02/11/21 14:55	mfm
Arsenic, total	M200.8 ICP-MS	1	0.00029	B		mg/L	0.0002	0.001	02/10/21 9:02	mfm
Boron, dissolved	M200.7 ICP	1	0.042	B		mg/L	0.02	0.1	02/03/21 20:55	kja
Boron, total	M200.7 ICP	1	0.028	B		mg/L	0.02	0.1	02/08/21 11:39	jlw
Calcium, dissolved	M200.7 ICP	1	47.9			mg/L	0.1	0.5	02/03/21 20:55	kja
Chromium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/03/21 20:55	kja
Chromium, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 14:58	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/04/21 21:06	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/06/21 1:20	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U	*	mg/L	0.06	0.15	02/03/21 20:55	kja
Iron, total	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	02/06/21 1:20	jlw
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/11/21 14:55	mfm
Lead, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/10/21 9:02	mfm
Magnesium, dissolved	M200.7 ICP	1	15.9			mg/L	0.2	1	02/03/21 20:55	kja
Manganese, dissolved	M200.7 ICP	1	0.037	B		mg/L	0.01	0.05	02/03/21 20:55	kja
Manganese, total	M200.7 ICP	1	0.025	B		mg/L	0.01	0.05	02/06/21 1:20	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/11/21 10:30	llr
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/09/21 13:30	llr
Molybdenum, dissolved	M200.8 ICP-MS	1	0.00641			mg/L	0.0002	0.0005	02/11/21 14:55	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.00620			mg/L	0.0002	0.0005	02/12/21 11:43	mfm
Potassium, dissolved	M200.7 ICP	1	2.62			mg/L	0.2	1	02/03/21 20:55	kja
Selenium, dissolved	M200.8 ICP-MS	1	0.00047			mg/L	0.0001	0.00025	02/12/21 15:38	mfm
Selenium, total	M200.8 ICP-MS	1	0.00055			mg/L	0.0001	0.00025	02/10/21 9:02	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/12/21 15:38	mfm
Silver, total	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	02/10/21 9:02	mfm
Sodium, dissolved	M200.7 ICP	1	41.4			mg/L	0.2	1	02/03/21 20:55	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/11/21 14:55	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/10/21 9:02	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.0422			mg/L	0.0001	0.0005	02/11/21 14:55	mfm
Uranium, total	M200.8 ICP-MS	1	0.0451			mg/L	0.0001	0.0005	02/10/21 9:02	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/03/21 20:55	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/06/21 1:20	jlw

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-ARH

ACZ Sample ID: **L63972-02**

Date Sampled: 01/27/21 11:28

Date Received: 01/29/21

Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	89.9			mg/L	2	20	01/30/21 0:00	eep
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	01/30/21 0:00	eep
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	01/30/21 0:00	eep
Total Alkalinity		1	89.9			mg/L	2	20	01/30/21 0:00	eep
Cation-Anion Balance	Calculation									
Cation-Anion Balance			3.7			%			02/22/21 0:00	calc
Sum of Anions			5.2			meq/L			02/22/21 0:00	calc
Sum of Cations			5.6			meq/L			02/22/21 0:00	calc
Chloride	SM4500Cl-E	1	59.5			mg/L	0.5	2	02/18/21 18:40	syw
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	02/07/21 0:38	pjb
Fluoride	SM4500F-C	1	0.35	B		mg/L	0.11	0.35	02/17/21 13:13	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	<0.02	U	*	mg/L	0.02	0.1	02/13/21 0:01	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	02/22/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	02/12/21 0:47	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	310		*	mg/L	20	40	01/29/21 15:09	scd
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	01/29/21 20:28	jck
Sulfate	D516-02/-07/-11 - Turbidimetric	5	79.9			mg/L	5	25	02/04/21 13:21	ttg
TDS (calculated)	Calculation		302			mg/L			02/22/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.03						02/22/21 0:00	calc

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-FBRG

ACZ Sample ID: **L63972-03**

Date Sampled: 01/27/21 12:20

Date Received: 01/29/21

Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						02/05/21 6:57	wtc
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								02/11/21 12:02	cbj
Total Hot Plate Digestion	M200.2 ICP-MS								02/05/21 11:30	mfm
Total Hot Plate Digestion	M200.2 ICP								02/04/21 16:23	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-FBRG

ACZ Sample ID: **L63972-03**

Date Sampled: 01/27/21 12:20

Date Received: 01/29/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/03/21 21:04	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/06/21 1:23	jlw
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/12/21 15:40	mfm
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/10/21 9:04	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	02/11/21 14:57	mfm
Arsenic, total	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	02/10/21 9:04	mfm
Boron, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	02/03/21 21:04	kja
Boron, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	02/08/21 11:42	jlw
Calcium, dissolved	M200.7 ICP	1	45.3			mg/L	0.1	0.5	02/03/21 21:04	kja
Chromium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/03/21 21:04	kja
Chromium, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 15:01	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/04/21 21:09	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/06/21 1:23	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U	*	mg/L	0.06	0.15	02/03/21 21:04	kja
Iron, total	M200.7 ICP	1	0.061	B		mg/L	0.06	0.15	02/06/21 1:23	jlw
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/11/21 14:57	mfm
Lead, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/10/21 9:04	mfm
Magnesium, dissolved	M200.7 ICP	1	14.1			mg/L	0.2	1	02/03/21 21:04	kja
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/03/21 21:04	kja
Manganese, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/06/21 1:23	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/11/21 10:33	llr
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/09/21 13:31	llr
Molybdenum, dissolved	M200.8 ICP-MS	1	0.00288			mg/L	0.0002	0.0005	02/11/21 14:57	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.00273			mg/L	0.0002	0.0005	02/12/21 11:45	mfm
Potassium, dissolved	M200.7 ICP	1	2.08			mg/L	0.2	1	02/03/21 21:04	kja
Selenium, dissolved	M200.8 ICP-MS	1	0.00033			mg/L	0.0001	0.00025	02/12/21 15:40	mfm
Selenium, total	M200.8 ICP-MS	1	0.00031			mg/L	0.0001	0.00025	02/10/21 9:04	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/12/21 15:40	mfm
Silver, total	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	02/10/21 9:04	mfm
Sodium, dissolved	M200.7 ICP	1	20.1			mg/L	0.2	1	02/03/21 21:04	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/11/21 14:57	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/10/21 9:04	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.0322			mg/L	0.0001	0.0005	02/11/21 14:57	mfm
Uranium, total	M200.8 ICP-MS	1	0.0342			mg/L	0.0001	0.0005	02/10/21 9:04	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/03/21 21:04	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/06/21 1:23	jlw

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-FBRG

ACZ Sample ID: **L63972-03**

Date Sampled: 01/27/21 12:20

Date Received: 01/29/21

Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	64.3			mg/L	2	20	01/30/21 0:00	eep
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	01/30/21 0:00	eep
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	01/30/21 0:00	eep
Total Alkalinity		1	64.3			mg/L	2	20	01/30/21 0:00	eep
Cation-Anion Balance	Calculation									
Cation-Anion Balance			3.5			%			02/22/21 0:00	calc
Sum of Anions			4.1			meq/L			02/22/21 0:00	calc
Sum of Cations			4.4			meq/L			02/22/21 0:00	calc
Chloride	SM4500Cl-E	1	63.0			mg/L	0.5	2	02/18/21 18:40	syw
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	02/07/21 0:39	pjb
Fluoride	SM4500F-C	1	0.24	B		mg/L	0.11	0.35	02/17/21 13:18	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	<0.02	U	*	mg/L	0.02	0.1	02/13/21 0:06	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	02/22/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	02/12/21 0:49	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	242		*	mg/L	20	40	01/29/21 15:12	scd
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	01/29/21 20:30	jck
Sulfate	D516-02/-07/-11 - Turbidimetric	5	47.7			mg/L	5	25	02/04/21 13:21	ttg
TDS (calculated)	Calculation		232			mg/L			02/22/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.04						02/22/21 0:00	calc

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-BPL

ACZ Sample ID: **L63972-04**

Date Sampled: 01/27/21 13:45

Date Received: 01/29/21

Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						02/05/21 7:43	wtc
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								02/11/21 12:07	cbj
Total Hot Plate Digestion	M200.2 ICP-MS								02/05/21 11:30	mfm
Total Hot Plate Digestion	M200.2 ICP								02/04/21 16:35	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-BPL

ACZ Sample ID: **L63972-04**

Date Sampled: 01/27/21 13:45

Date Received: 01/29/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/03/21 21:13	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/06/21 1:27	jlw
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/12/21 15:42	mfm
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/10/21 9:09	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	02/11/21 15:02	mfm
Arsenic, total	M200.8 ICP-MS	1	0.00021	B		mg/L	0.0002	0.001	02/10/21 9:09	mfm
Boron, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	02/03/21 21:13	kja
Boron, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	02/08/21 11:45	jlw
Calcium, dissolved	M200.7 ICP	1	44.4			mg/L	0.1	0.5	02/03/21 21:13	kja
Chromium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/03/21 21:13	kja
Chromium, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 15:05	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/04/21 21:12	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/06/21 1:27	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U	*	mg/L	0.06	0.15	02/03/21 21:13	kja
Iron, total	M200.7 ICP	1	0.073	B		mg/L	0.06	0.15	02/06/21 1:27	jlw
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/11/21 15:02	mfm
Lead, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/10/21 9:09	mfm
Magnesium, dissolved	M200.7 ICP	1	13.6			mg/L	0.2	1	02/03/21 21:13	kja
Manganese, dissolved	M200.7 ICP	1	0.013	B		mg/L	0.01	0.05	02/03/21 21:13	kja
Manganese, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/06/21 1:27	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/11/21 10:36	llr
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/09/21 13:36	llr
Molybdenum, dissolved	M200.8 ICP-MS	1	0.00250			mg/L	0.0002	0.0005	02/11/21 15:02	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.00227			mg/L	0.0002	0.0005	02/12/21 11:50	mfm
Potassium, dissolved	M200.7 ICP	1	2.06			mg/L	0.2	1	02/03/21 21:13	kja
Selenium, dissolved	M200.8 ICP-MS	1	0.00027			mg/L	0.0001	0.00025	02/12/21 15:42	mfm
Selenium, total	M200.8 ICP-MS	1	0.00041			mg/L	0.0001	0.00025	02/10/21 9:09	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	02/11/21 15:02	mfm
Silver, total	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	02/10/21 9:09	mfm
Sodium, dissolved	M200.7 ICP	1	19.4			mg/L	0.2	1	02/03/21 21:13	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/11/21 15:02	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/10/21 9:09	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.0260			mg/L	0.0001	0.0005	02/11/21 15:02	mfm
Uranium, total	M200.8 ICP-MS	1	0.0281			mg/L	0.0001	0.0005	02/10/21 9:09	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/03/21 21:13	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/06/21 1:27	jlw

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Project ID: 3100-PO205

Sample ID: SW-BPL

ACZ Sample ID: **L63972-04**

Date Sampled: 01/27/21 13:45

Date Received: 01/29/21

Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	63.2			mg/L	2	20	01/30/21 0:00	eep
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	01/30/21 0:00	eep
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	01/30/21 0:00	eep
Total Alkalinity		1	63.2			mg/L	2	20	01/30/21 0:00	eep
Cation-Anion Balance	Calculation									
Cation-Anion Balance			2.4			%			02/22/21 0:00	calc
Sum of Anions			4.0			meq/L			02/22/21 0:00	calc
Sum of Cations			4.2			meq/L			02/22/21 0:00	calc
Chloride	SM4500Cl-E	1	62.4			mg/L	0.5	2	02/18/21 18:40	syw
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	02/07/21 0:40	pjb
Fluoride	SM4500F-C	1	0.24	B		mg/L	0.11	0.35	02/17/21 13:22	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	0.025	B	*	mg/L	0.02	0.1	02/13/21 0:08	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	02/22/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	02/12/21 0:50	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	252		*	mg/L	20	40	01/30/21 10:53	mlh
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	01/29/21 20:32	jck
Sulfate	D516-02/-07/-11 - Turbidimetric	5	46.5			mg/L	5	25	02/04/21 13:21	ttg
TDS (calculated)	Calculation		227			mg/L			02/22/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.11						02/22/21 0:00	calc

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-NWRP

ACZ Sample ID: **L63972-05**

Date Sampled: 01/27/21 14:42

Date Received: 01/29/21

Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						02/05/21 9:14	wtc
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								02/11/21 12:11	cbj
Total Hot Plate Digestion	M200.2 ICP-MS								02/05/21 11:30	mfm
Total Hot Plate Digestion	M200.2 ICP								02/04/21 16:47	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-NWRP

ACZ Sample ID: **L63972-05**

Date Sampled: 01/27/21 14:42

Date Received: 01/29/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/03/21 21:16	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/06/21 1:30	jlw
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/12/21 15:47	mfm
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/10/21 9:14	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	02/11/21 15:04	mfm
Arsenic, total	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	02/10/21 9:14	mfm
Boron, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	02/03/21 21:16	kja
Boron, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	02/08/21 11:49	jlw
Calcium, dissolved	M200.7 ICP	1	43.0			mg/L	0.1	0.5	02/03/21 21:16	kja
Chromium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/03/21 21:16	kja
Chromium, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 15:08	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/04/21 21:15	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/06/21 1:30	jlw
Iron, dissolved	M200.7 ICP	1	0.246		*	mg/L	0.06	0.15	02/03/21 21:16	kja
Iron, total	M200.7 ICP	1	0.278			mg/L	0.06	0.15	02/06/21 1:30	jlw
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/11/21 15:04	mfm
Lead, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/10/21 9:14	mfm
Magnesium, dissolved	M200.7 ICP	1	12.6			mg/L	0.2	1	02/03/21 21:16	kja
Manganese, dissolved	M200.7 ICP	1	0.025	B		mg/L	0.01	0.05	02/03/21 21:16	kja
Manganese, total	M200.7 ICP	1	0.019	B		mg/L	0.01	0.05	02/06/21 1:30	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/11/21 10:37	llr
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/09/21 13:37	llr
Molybdenum, dissolved	M200.8 ICP-MS	1	0.00114			mg/L	0.0002	0.0005	02/11/21 15:04	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.00097			mg/L	0.0002	0.0005	02/12/21 11:52	mfm
Potassium, dissolved	M200.7 ICP	1	1.91			mg/L	0.2	1	02/03/21 21:16	kja
Selenium, dissolved	M200.8 ICP-MS	1	0.00021	B		mg/L	0.0001	0.00025	02/12/21 15:47	mfm
Selenium, total	M200.8 ICP-MS	1	0.00027			mg/L	0.0001	0.00025	02/10/21 9:14	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	02/11/21 15:04	mfm
Silver, total	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	02/10/21 9:14	mfm
Sodium, dissolved	M200.7 ICP	1	19.8			mg/L	0.2	1	02/03/21 21:16	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/11/21 15:04	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/10/21 9:14	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.00879			mg/L	0.0001	0.0005	02/11/21 15:04	mfm
Uranium, total	M200.8 ICP-MS	1	0.00779			mg/L	0.0001	0.0005	02/10/21 9:14	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/03/21 21:16	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/06/21 1:30	jlw

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Project ID: 3100-PO205

Sample ID: SW-NWRP

ACZ Sample ID: **L63972-05**

Date Sampled: 01/27/21 14:42

Date Received: 01/29/21

Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	59.0			mg/L	2	20	01/30/21 0:00	eep
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	01/30/21 0:00	eep
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	01/30/21 0:00	eep
Total Alkalinity		1	59.0			mg/L	2	20	01/30/21 0:00	eep
Cation-Anion Balance	Calculation									
Cation-Anion Balance			2.5			%			02/22/21 0:00	calc
Sum of Anions			3.9			meq/L			02/22/21 0:00	calc
Sum of Cations			4.1			meq/L			02/22/21 0:00	calc
Chloride	SM4500Cl-E	1	63.8			mg/L	0.5	2	02/18/21 18:40	syw
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	02/07/21 0:42	pjb
Fluoride	SM4500F-C	1	0.28	B		mg/L	0.11	0.35	02/17/21 13:40	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	<0.02	U	*	mg/L	0.02	0.1	02/13/21 0:09	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	02/22/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	02/12/21 0:51	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	246		*	mg/L	20	40	01/30/21 10:56	mlh
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	02/02/21 8:52	mlh
Sulfate	D516-02/-07/-11 - Turbidimetric	5	42.4			mg/L	5	25	02/04/21 13:21	ttg
TDS (calculated)	Calculation		220			mg/L			02/22/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.12						02/22/21 0:00	calc

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Project ID: 3100-PO205

Sample ID: SW-AWD

ACZ Sample ID: **L63972-06**

Date Sampled: 01/27/21 15:25

Date Received: 01/29/21

Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						02/05/21 12:17	bjp/wtc
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								02/11/21 12:16	cbj
Total Hot Plate Digestion	M200.2 ICP-MS								02/05/21 11:30	mfm
Total Hot Plate Digestion	M200.2 ICP								02/04/21 16:58	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-AWD

ACZ Sample ID: **L63972-06**

Date Sampled: 01/27/21 15:25

Date Received: 01/29/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/03/21 21:19	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/06/21 1:33	jlw
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/12/21 15:49	mfm
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/10/21 9:16	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	0.00036	B		mg/L	0.0002	0.001	02/11/21 15:10	mfm
Arsenic, total	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	02/10/21 9:16	mfm
Boron, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	02/03/21 21:19	kja
Boron, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	02/08/21 11:52	jlw
Calcium, dissolved	M200.7 ICP	1	42.6			mg/L	0.1	0.5	02/03/21 21:19	kja
Chromium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/03/21 21:19	kja
Chromium, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 15:11	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/04/21 21:24	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/06/21 1:33	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U	*	mg/L	0.06	0.15	02/03/21 21:19	kja
Iron, total	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	02/06/21 1:33	jlw
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/11/21 15:10	mfm
Lead, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/10/21 9:16	mfm
Magnesium, dissolved	M200.7 ICP	1	12.0			mg/L	0.2	1	02/03/21 21:19	kja
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/03/21 21:19	kja
Manganese, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/06/21 1:33	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/11/21 10:38	llr
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/09/21 13:38	llr
Molybdenum, dissolved	M200.8 ICP-MS	1	0.00050			mg/L	0.0002	0.0005	02/11/21 15:10	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.00034	B		mg/L	0.0002	0.0005	02/12/21 11:54	mfm
Potassium, dissolved	M200.7 ICP	1	1.58			mg/L	0.2	1	02/03/21 21:19	kja
Selenium, dissolved	M200.8 ICP-MS	1	0.00026			mg/L	0.0001	0.00025	02/11/21 15:10	mfm
Selenium, total	M200.8 ICP-MS	1	0.00025	B		mg/L	0.0001	0.00025	02/10/21 9:16	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/11/21 15:10	mfm
Silver, total	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	02/10/21 9:16	mfm
Sodium, dissolved	M200.7 ICP	1	20.8			mg/L	0.2	1	02/03/21 21:19	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/11/21 15:10	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/10/21 9:16	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.00302			mg/L	0.0001	0.0005	02/11/21 15:10	mfm
Uranium, total	M200.8 ICP-MS	1	0.00263			mg/L	0.0001	0.0005	02/10/21 9:16	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/03/21 21:19	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/06/21 1:33	jlw

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Project ID: 3100-PO205

Sample ID: SW-AWD

ACZ Sample ID: **L63972-06**

Date Sampled: 01/27/21 15:25

Date Received: 01/29/21

Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	59.5			mg/L	2	20	01/30/21 0:00	eep
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	01/30/21 0:00	eep
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	01/30/21 0:00	eep
Total Alkalinity		1	59.5			mg/L	2	20	01/30/21 0:00	eep
Cation-Anion Balance	Calculation									
Cation-Anion Balance			2.5			%			02/22/21 0:00	calc
Sum of Anions			3.9			meq/L			02/22/21 0:00	calc
Sum of Cations			4.1			meq/L			02/22/21 0:00	calc
Chloride	SM4500Cl-E	1	64.5			mg/L	0.5	2	02/18/21 18:40	syw
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	02/07/21 2:27	pjb
Fluoride	SM4500F-C	1	0.30	B		mg/L	0.11	0.35	02/17/21 13:53	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	0.034	B	*	mg/L	0.02	0.1	02/13/21 0:10	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	02/22/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	02/12/21 0:52	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	254		*	mg/L	20	40	01/30/21 10:58	mlh
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	02/02/21 9:21	mlh
Sulfate	D516-02/-07/-11 - Turbidimetric	5	40.3			mg/L	5	25	02/04/21 13:21	ttg
TDS (calculated)	Calculation		218			mg/L			02/22/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.17						02/22/21 0:00	calc

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Project ID: 3100-PO205

Sample ID: MW-18

ACZ Sample ID: **L63972-07**

Date Sampled: 01/28/21 14:38

Date Received: 01/29/21

Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						02/05/21 12:40	bjp/wtc
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								02/11/21 12:21	cbj
Total Hot Plate Digestion	M200.2 ICP-MS								02/05/21 11:30	mfm
Total Hot Plate Digestion	M200.2 ICP								02/04/21 17:34	kja

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Project ID: 3100-PO205

Sample ID: MW-18

ACZ Sample ID: **L63972-07**

Date Sampled: 01/28/21 14:38

Date Received: 01/29/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	02/03/21 21:22	kja
Aluminum, total	M200.7 ICP	1	0.336			mg/L	0.05	0.25	02/06/21 1:49	jlw
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/12/21 15:51	mfm
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	02/10/21 9:18	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	0.00132			mg/L	0.0002	0.001	02/11/21 15:11	mfm
Arsenic, total	M200.8 ICP-MS	1	0.00127			mg/L	0.0002	0.001	02/10/21 9:18	mfm
Boron, dissolved	M200.7 ICP	1	0.112			mg/L	0.02	0.1	02/03/21 21:22	kja
Boron, total	M200.7 ICP	1	0.098	B		mg/L	0.02	0.1	02/08/21 12:08	jlw
Calcium, dissolved	M200.7 ICP	1	103		*	mg/L	0.1	0.5	02/03/21 21:22	kja
Chromium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/03/21 21:22	kja
Chromium, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/08/21 15:27	jlw
Copper, dissolved	M200.7 ICP	1	0.011	B		mg/L	0.01	0.05	02/03/21 21:22	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	02/06/21 1:49	jlw
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	02/03/21 21:22	kja
Iron, total	M200.7 ICP	1	0.494			mg/L	0.06	0.15	02/06/21 1:49	jlw
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/11/21 15:11	mfm
Lead, total	M200.8 ICP-MS	1	0.00056			mg/L	0.0001	0.0005	02/10/21 9:18	mfm
Magnesium, dissolved	M200.7 ICP	1	38.1		*	mg/L	0.2	1	02/03/21 21:22	kja
Manganese, dissolved	M200.7 ICP	1	0.078			mg/L	0.01	0.05	02/03/21 21:22	kja
Manganese, total	M200.7 ICP	1	0.077			mg/L	0.01	0.05	02/06/21 1:49	jlw
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/11/21 10:38	llr
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	02/09/21 13:38	llr
Molybdenum, dissolved	M200.8 ICP-MS	1	0.0455			mg/L	0.0002	0.0005	02/11/21 15:11	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.0465			mg/L	0.0002	0.0005	02/12/21 11:59	mfm
Potassium, dissolved	M200.7 ICP	1	6.18			mg/L	0.2	1	02/03/21 21:22	kja
Selenium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.00025	02/11/21 15:11	mfm
Selenium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.00025	02/10/21 9:18	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	02/11/21 15:11	mfm
Silver, total	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	02/10/21 9:18	mfm
Sodium, dissolved	M200.7 ICP	1	79.3		*	mg/L	0.2	1	02/03/21 21:22	kja
Thallium, dissolved	M200.8 ICP-MS	1	0.00015	B		mg/L	0.0001	0.0005	02/11/21 15:11	mfm
Thallium, total	M200.8 ICP-MS	1	0.00012	B		mg/L	0.0001	0.0005	02/10/21 9:18	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.653			mg/L	0.0001	0.0005	02/11/21 15:11	mfm
Uranium, total	M200.8 ICP-MS	1	0.657			mg/L	0.0001	0.0005	02/10/21 9:18	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/03/21 21:22	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	02/06/21 1:49	jlw

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Project ID: 3100-PO205
Sample ID: MW-18

ACZ Sample ID: **L63972-07**
Date Sampled: 01/28/21 14:38
Date Received: 01/29/21
Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	189			mg/L	2	20	01/30/21 0:00	eep
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	01/30/21 0:00	eep
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	01/30/21 0:00	eep
Total Alkalinity		1	189			mg/L	2	20	01/30/21 0:00	eep
Cation-Anion Balance	Calculation									
Cation-Anion Balance			4.3			%			02/22/21 0:00	calc
Sum of Anions			11			meq/L			02/22/21 0:00	calc
Sum of Cations			12			meq/L			02/22/21 0:00	calc
Chloride	SM4500Cl-E	1	19.3			mg/L	0.5	2	02/18/21 18:40	syw
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	02/07/21 2:29	pjb
Fluoride	SM4500F-C	1	0.46			mg/L	0.11	0.35	02/17/21 13:57	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	0.084	B	*	mg/L	0.02	0.1	02/13/21 0:13	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	02/22/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	02/12/21 0:56	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	744		*	mg/L	20	40	01/30/21 11:01	mlh
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	02/02/21 9:49	mlh
Sulfate	D516-02/-07/-11 - Turbidimetric	20	336			mg/L	20	100	02/04/21 14:05	ttg
TDS (calculated)	Calculation		698			mg/L			02/22/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.07						02/22/21 0:00	calc



Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste.
(5)	Standard Methods for the Examination of Water and Wastewater.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4)	An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5)	If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

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ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alkalinity as CaCO3 SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513639													
WG513639PBW1	PBW	01/30/21 13:56				12	mg/L		-20	20			
WG513639PQV2	PQV	01/30/21 14:26	WC200729-2	20		22.3	mg/L	112	50	150			
WG513639PBW2	PBW	01/30/21 18:10				2.9	mg/L		-20	20			
L63972-07DUP	DUP	01/30/21 19:32			189	189.2	mg/L				0	20	
WG513639PBW3	PBW	01/30/21 21:32				2.9	mg/L		-20	20			

Aluminum, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513799													
WG513799ICV	ICV	02/03/21 20:18	II210127-1	2		1.946	mg/L	97	95	105			
WG513799ICB	ICB	02/03/21 20:24				U	mg/L		-0.15	0.15			
WG513799PQV	PQV	02/03/21 20:27	II210104-2	.250325		.224	mg/L	89	70	130			
WG513799SIC	SIC	02/03/21 20:30	II210118-1	200.510325		202.2	mg/L	101	1	200			
WG513799LFB	LFB	02/03/21 20:36	II210129-2	1.0013		.989	mg/L	99	85	115			
L63972-02AS	AS	02/03/21 20:58	II210129-2	1.0013	U	1.057	mg/L	106	85	115			
L63972-02ASD	ASD	02/03/21 21:01	II210129-2	1.0013	U	1.104	mg/L	110	85	115	4	20	
WG513799CCV1	CCV	02/03/21 21:07	II210125-2	1		1.021	mg/L	102	90	110			
WG513799CCB1	CCB	02/03/21 21:10				U	mg/L		-0.15	0.15			
L63987-02AS	AS	02/03/21 21:42	II210129-2	1.0013	U	1.065	mg/L	106	85	115			
WG513799CCV2	CCV	02/03/21 21:45	II210125-2	1		1.018	mg/L	102	90	110			
WG513799CCB2	CCB	02/03/21 21:48				U	mg/L		-0.15	0.15			
L63987-02ASD	ASD	02/03/21 21:51	II210129-2	1.0013	U	1.079	mg/L	108	85	115	1	20	
WG513799CCV3	CCV	02/03/21 22:08	II210125-2	1		1.021	mg/L	102	90	110			
WG513799CCB3	CCB	02/03/21 22:11				U	mg/L		-0.15	0.15			

Aluminum, total M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513924													
WG513924ICV	ICV	02/06/21 0:51	II210119-2	2		1.928	mg/L	96	95	105			
WG513924ICB	ICB	02/06/21 0:57				U	mg/L		-0.15	0.15			
WG513924PQV	PQV	02/06/21 1:01	II210204-2	.250325		.191	mg/L	76	70	130			
WG513924SIC	SIC	02/06/21 1:04	II210119-1	200.510325		206	mg/L	103	1	200			
WG513885LRB	LRB	02/06/21 1:10				U	mg/L		-0.11	0.11			
WG513885LFB	LFB	02/06/21 1:14	II210129-2	1.0013		1.004	mg/L	100	85	115			
L63972-06LFM	LFM	02/06/21 1:37	II210129-2	1.0013	U	.991	mg/L	99	70	130			
L63972-06LFMD	LFMD	02/06/21 1:40	II210129-2	1.0013	U	.985	mg/L	98	70	130	1	20	
WG513924CCV1	CCV	02/06/21 1:43	II210204-3	1		.947	mg/L	95	90	110			
WG513924CCB1	CCB	02/06/21 1:46				U	mg/L		-0.15	0.15			
WG513924CCV2	CCV	02/06/21 2:22	II210204-3	1		.959	mg/L	96	90	110			
WG513924CCB2	CCB	02/06/21 2:25				U	mg/L		-0.15	0.15			
WG513924CCV3	CCV	02/06/21 2:48	II210204-3	1		.962	mg/L	96	90	110			
WG513924CCB3	CCB	02/06/21 2:51				U	mg/L		-0.15	0.15			

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Antimony, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514291													
WG514291ICV	ICV	02/12/21 14:47	MS210115-2	.0201		.02019	mg/L	100	90	110			
WG514291ICB	ICB	02/12/21 14:49				.00065	mg/L		-0.00088	0.00088			
WG514291LFB	LFB	02/12/21 14:51	MS201228-2	.01		.00863	mg/L	86	85	115			
WG514291CCV1	CCV	02/12/21 15:22	MS210212-2	.0125		.01226	mg/L	98	90	110			
WG514291CCB1	CCB	02/12/21 15:24				.00055	mg/L		-0.0012	0.0012			
L63971-01AS	AS	02/12/21 15:31	MS201228-2	.01	U	.0073	mg/L	73	70	130			
L63971-01ASD	ASD	02/12/21 15:33	MS201228-2	.01	U	.00763	mg/L	76	70	130	4	20	
WG514291CCV2	CCV	02/12/21 15:44	MS210212-2	.0125		.01213	mg/L	97	90	110			
WG514291CCB2	CCB	02/12/21 15:45				.00041	mg/L		-0.0012	0.0012			
WG514291CCV3	CCV	02/12/21 16:04	MS210212-2	.0125		.01212	mg/L	97	90	110			
WG514291CCB3	CCB	02/12/21 16:05				U	mg/L		-0.0012	0.0012			
L64122-01AS	AS	02/12/21 16:09	MS201228-2	.01	U	.00792	mg/L	79	70	130			
L64122-01ASD	ASD	02/12/21 16:11	MS201228-2	.01	U	.0081	mg/L	81	70	130	2	20	
WG514291CCV4	CCV	02/12/21 16:14	MS210212-2	.0125		.01247	mg/L	100	90	110			
WG514291CCB4	CCB	02/12/21 16:16				.00044	mg/L		-0.0012	0.0012			

Antimony, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514078													
WG514078ICV	ICV	02/10/21 8:49	MS210115-2	.0201		.01927	mg/L	96	90	110			
WG514078ICB	ICB	02/10/21 8:51				.00052	mg/L		-0.0012	0.0012			
WG513920LRB	LRB	02/10/21 8:53				U	mg/L		-0.00088	0.00088			
WG513920LFB	LFB	02/10/21 8:55	MS201228-2	.01		.01004	mg/L	100	85	115			
L63972-03LFM	LFM	02/10/21 9:05	MS201228-2	.01	U	.01026	mg/L	103	70	130			
L63972-03LFMD	LFMD	02/10/21 9:07	MS201228-2	.01	U	.01031	mg/L	103	70	130	0	20	
WG514078CCV1	CCV	02/10/21 9:11	MS210122-2	.0125		.01224	mg/L	98	90	110			
WG514078CCB1	CCB	02/10/21 9:12				U	mg/L		-0.0012	0.0012			
WG514078CCV2	CCV	02/10/21 9:32	MS210122-2	.0125		.01211	mg/L	97	90	110			
WG514078CCB2	CCB	02/10/21 9:34				U	mg/L		-0.0012	0.0012			
WG514078CCV3	CCV	02/10/21 9:43	MS210122-2	.0125		.01207	mg/L	97	90	110			
WG514078CCB3	CCB	02/10/21 9:45				U	mg/L		-0.0012	0.0012			

Arsenic, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514206													
WG514206ICV	ICV	02/11/21 14:39	MS210115-2	.05		.04957	mg/L	99	90	110			
WG514206ICB	ICB	02/11/21 14:41				U	mg/L		-0.00044	0.00044			
WG514206LFB	LFB	02/11/21 14:43	MS201228-2	.05005		.05049	mg/L	101	85	115			
WG514206CCV1	CCV	02/11/21 14:46	MS210122-2	.1001		.10572	mg/L	106	90	110			
WG514206CCB1	CCB	02/11/21 14:48				.00023	mg/L		-0.0006	0.0006			
L63972-03AS	AS	02/11/21 14:59	MS201228-2	.05005	U	.05411	mg/L	108	70	130			
L63972-03ASD	ASD	02/11/21 15:01	MS201228-2	.05005	U	.05337	mg/L	107	70	130	1	20	
WG514206CCV2	CCV	02/11/21 15:06	MS210122-2	.1001		.10473	mg/L	105	90	110			
WG514206CCB2	CCB	02/11/21 15:08				U	mg/L		-0.0006	0.0006			
WG514206CCV3	CCV	02/11/21 15:28	MS210122-2	.1001		.1041	mg/L	104	90	110			
WG514206CCB3	CCB	02/11/21 15:29				U	mg/L		-0.0006	0.0006			
WG514206CCV4	CCV	02/11/21 15:39	MS210122-2	.1001		.10031	mg/L	100	90	110			
WG514206CCB4	CCB	02/11/21 15:40				U	mg/L		-0.0006	0.0006			

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Arsenic, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514078													
WG514078ICV	ICV	02/10/21 8:49	MS210115-2	.05		.05108	mg/L	102	90	110			
WG514078ICB	ICB	02/10/21 8:51				U	mg/L		-0.0006	0.0006			
WG513920LRB	LRB	02/10/21 8:53				U	mg/L		-0.00044	0.00044			
WG513920LFB	LFB	02/10/21 8:55	MS201228-2	.05005		.04739	mg/L	95	85	115			
L63972-03LFM	LFM	02/10/21 9:05	MS201228-2	.05005	U	.0479	mg/L	96	70	130			
L63972-03LFMD	LFMD	02/10/21 9:07	MS201228-2	.05005	U	.0481	mg/L	96	70	130	0	20	
WG514078CCV1	CCV	02/10/21 9:11	MS210122-2	.1001		.10255	mg/L	102	90	110			
WG514078CCB1	CCB	02/10/21 9:12				U	mg/L		-0.0006	0.0006			
WG514078CCV2	CCV	02/10/21 9:32	MS210122-2	.1001		.09773	mg/L	98	90	110			
WG514078CCB2	CCB	02/10/21 9:34				U	mg/L		-0.0006	0.0006			
WG514078CCV3	CCV	02/10/21 9:43	MS210122-2	.1001		.09623	mg/L	96	90	110			
WG514078CCB3	CCB	02/10/21 9:45				U	mg/L		-0.0006	0.0006			

Boron, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513799													
WG513799ICV	ICV	02/03/21 20:18	II210127-1	2		1.927	mg/L	96	95	105			
WG513799ICB	ICB	02/03/21 20:24				U	mg/L		-0.06	0.06			
WG513799PQV	PQV	02/03/21 20:27	II210104-2	.1001		.103	mg/L	103	70	130			
WG513799SIC	SIC	02/03/21 20:30	II210118-1	.1001		.093	mg/L	93	80	120			
WG513799LFB	LFB	02/03/21 20:36	II210129-2	.5005		.488	mg/L	98	85	115			
L63972-02AS	AS	02/03/21 20:58	II210129-2	.5005	.042	.57	mg/L	105	85	115			
L63972-02ASD	ASD	02/03/21 21:01	II210129-2	.5005	.042	.572	mg/L	106	85	115	0	20	
WG513799CCV1	CCV	02/03/21 21:07	II210125-2	1		1.024	mg/L	102	90	110			
WG513799CCB1	CCB	02/03/21 21:10				U	mg/L		-0.06	0.06			
L63987-02AS	AS	02/03/21 21:42	II210129-2	.5005	.369	.851	mg/L	96	85	115			
WG513799CCV2	CCV	02/03/21 21:45	II210125-2	1		1.021	mg/L	102	90	110			
WG513799CCB2	CCB	02/03/21 21:48				U	mg/L		-0.06	0.06			
L63987-02ASD	ASD	02/03/21 21:51	II210129-2	.5005	.369	.857	mg/L	98	85	115	1	20	
WG513799CCV3	CCV	02/03/21 22:08	II210125-2	1		1.008	mg/L	101	90	110			
WG513799CCB3	CCB	02/03/21 22:11				U	mg/L		-0.06	0.06			

Boron, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513994													
WG513994ICV	ICV	02/08/21 11:10	II210119-2	2		1.991	mg/L	100	95	105			
WG513994ICB	ICB	02/08/21 11:16				U	mg/L		-0.06	0.06			
WG513994PQV	PQV	02/08/21 11:20	II210204-2	.1001		.093	mg/L	93	70	130			
WG513994SIC	SIC	02/08/21 11:23	II210119-1	.1001		.084	mg/L	84	80	120			
WG513885LRB	LRB	02/08/21 11:29				U	mg/L		-0.044	0.044			
WG513885LFB	LFB	02/08/21 11:33	II210129-2	.5005		.515	mg/L	103	85	115			
L63972-06LFM	LFM	02/08/21 11:55	II210129-2	.5005	U	.524	mg/L	105	70	130			
L63972-06LFMD	LFMD	02/08/21 11:58	II210129-2	.5005	U	.529	mg/L	106	70	130	1	20	
WG513994CCV1	CCV	02/08/21 12:01	II210204-3	1		.988	mg/L	99	90	110			
WG513994CCB1	CCB	02/08/21 12:04				U	mg/L		-0.06	0.06			
WG513994CCV2	CCV	02/08/21 12:33	II210204-3	1		.998	mg/L	100	90	110			
WG513994CCB2	CCB	02/08/21 12:36				U	mg/L		-0.06	0.06			

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Calcium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513799													
WG513799ICV	ICV	02/03/21 20:18	II210127-1	100		97.09	mg/L	97	95	105			
WG513799ICB	ICB	02/03/21 20:24				U	mg/L		-0.3	0.3			
WG513799PQV	PQV	02/03/21 20:27	II210104-2	.5006		.54	mg/L	108	70	130			
WG513799SIC	SIC	02/03/21 20:30	II210118-1	200.7406		195.5	mg/L	97	1	200			
WG513799LFB	LFB	02/03/21 20:36	II210129-2	68.0028		67.84	mg/L	100	85	115			
L63972-02AS	AS	02/03/21 20:58	II210129-2	68.0028	47.9	117.5	mg/L	102	85	115			
L63972-02ASD	ASD	02/03/21 21:01	II210129-2	68.0028	47.9	118.1	mg/L	103	85	115	1	20	
WG513799CCV1	CCV	02/03/21 21:07	II210125-2	50		51.62	mg/L	103	90	110			
WG513799CCB1	CCB	02/03/21 21:10				U	mg/L		-0.3	0.3			
L63987-02AS	AS	02/03/21 21:42	II210129-2	68.0028	582	605.3	mg/L	34	85	115			M3
WG513799CCV2	CCV	02/03/21 21:45	II210125-2	50		51.31	mg/L	103	90	110			
WG513799CCB2	CCB	02/03/21 21:48				U	mg/L		-0.3	0.3			
L63987-02ASD	ASD	02/03/21 21:51	II210129-2	68.0028	582	607.6	mg/L	38	85	115	0	20	M3
WG513799CCV3	CCV	02/03/21 22:08	II210125-2	50		50.88	mg/L	102	90	110			
WG513799CCB3	CCB	02/03/21 22:11				U	mg/L		-0.3	0.3			

Chloride

SM4500Cl-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514325													
WG514325ICB	ICB	02/18/21 15:03				U	mg/L		-1.5	1.5			
WG514325ICV	ICV	02/18/21 15:03	WI200506-2	55.055		57.8	mg/L	105	90	110			
WG514325CCV1	CCV	02/18/21 18:40	WI210203-7	50.05		50.5	mg/L	101	90	110			
WG514325CCB1	CCB	02/18/21 18:40				U	mg/L		-1.5	1.5			
WG514325LFB1	LFB	02/18/21 18:40	WI200327-3	30.03		31.92	mg/L	106	90	110			
L63972-01AS	AS	02/18/21 18:40	WI200327-3	30.03	56.1	83.99	mg/L	93	90	110			
L63972-02DUP	DUP	02/18/21 18:40			59.5	59.36	mg/L				0	20	
WG514325CCV2	CCV	02/18/21 18:41	WI210203-7	50.05		50.59	mg/L	101	90	110			
WG514325CCB2	CCB	02/18/21 18:41				U	mg/L		-1.5	1.5			
WG514325CCV3	CCV	02/18/21 18:43	WI210203-7	50.05		51.03	mg/L	102	90	110			
WG514325CCB3	CCB	02/18/21 18:43				U	mg/L		-1.5	1.5			
WG514325LFB2	LFB	02/18/21 18:44	WI200327-3	30.03		33.02	mg/L	110	90	110			
WG514325CCV4	CCV	02/18/21 18:49	WI210203-7	50.05		50.18	mg/L	100	90	110			
WG514325CCB4	CCB	02/18/21 18:49				U	mg/L		-1.5	1.5			
WG514325CCV5	CCV	02/18/21 18:50	WI210203-7	50.05		50.33	mg/L	101	90	110			
WG514325CCB5	CCB	02/18/21 18:50				U	mg/L		-1.5	1.5			
WG514325CCV6	CCV	02/18/21 18:55	WI210203-7	50.05		50.38	mg/L	101	90	110			
WG514325CCB6	CCB	02/18/21 18:55				U	mg/L		-1.5	1.5			
WG514325CCV7	CCV	02/18/21 20:05	WI210203-7	50.05		50.27	mg/L	100	90	110			
WG514325CCB7	CCB	02/18/21 20:05				U	mg/L		-1.5	1.5			
WG514325CCV8	CCV	02/18/21 20:07	WI210203-7	50.05		51.05	mg/L	102	90	110			
WG514325CCB8	CCB	02/18/21 20:07				U	mg/L		-1.5	1.5			
WG514325CCV9	CCV	02/18/21 20:14	WI210203-7	50.05		50.18	mg/L	100	90	110			
WG514325CCB9	CCB	02/18/21 20:14				U	mg/L		-1.5	1.5			

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chromium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513799													
WG513799ICV	ICV	02/03/21 20:18	II210127-1	2		1.949	mg/L	97	95	105			
WG513799ICB	ICB	02/03/21 20:24				U	mg/L		-0.03	0.03			
WG513799PQV	PQV	02/03/21 20:27	II210104-2	.05015		.043	mg/L	86	70	130			
WG513799SIC	SIC	02/03/21 20:30	II210118-1	.1003		.1	mg/L	100	80	120			
WG513799LFB	LFB	02/03/21 20:36	II210129-2	.5015		.488	mg/L	97	85	115			
L63972-02AS	AS	02/03/21 20:58	II210129-2	.5015	U	.524	mg/L	104	85	115			
L63972-02ASD	ASD	02/03/21 21:01	II210129-2	.5015	U	.53	mg/L	106	85	115	1	20	
WG513799CCV1	CCV	02/03/21 21:07	II210125-2	1		1.036	mg/L	104	90	110			
WG513799CCB1	CCB	02/03/21 21:10				U	mg/L		-0.03	0.03			
L63987-02AS	AS	02/03/21 21:42	II210129-2	.5015	U	.501	mg/L	100	85	115			
WG513799CCV2	CCV	02/03/21 21:45	II210125-2	1		1.036	mg/L	104	90	110			
WG513799CCB2	CCB	02/03/21 21:48				U	mg/L		-0.03	0.03			
L63987-02ASD	ASD	02/03/21 21:51	II210129-2	.5015	U	.503	mg/L	100	85	115	0	20	
WG513799CCV3	CCV	02/03/21 22:08	II210125-2	1		1.027	mg/L	103	90	110			
WG513799CCB3	CCB	02/03/21 22:11				U	mg/L		-0.03	0.03			

Chromium, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514009													
WG514009ICV	ICV	02/08/21 14:30	II210119-2	2		1.976	mg/L	99	95	105			
WG514009ICB	ICB	02/08/21 14:36				U	mg/L		-0.03	0.03			
WG514009PQV	PQV	02/08/21 14:39	II210204-2	.05015		.051	mg/L	102	70	130			
WG514009SIC	SIC	02/08/21 14:42	II210119-1	.1003		.093	mg/L	93	80	120			
WG513885LRB	LRB	02/08/21 14:49				U	mg/L		-0.022	0.022			
WG513885LFB	LFB	02/08/21 14:52	II210129-2	.5015		.503	mg/L	100	85	115			
L63972-06LFM	LFM	02/08/21 15:14	II210129-2	.5015	U	.503	mg/L	100	70	130			
L63972-06LFMD	LFMD	02/08/21 15:17	II210129-2	.5015	U	.498	mg/L	99	70	130	1	20	
WG514009CCV1	CCV	02/08/21 15:21	II210204-3	1		1.015	mg/L	102	90	110			
WG514009CCB1	CCB	02/08/21 15:24				U	mg/L		-0.03	0.03			
WG514009CCV2	CCV	02/08/21 15:52	II210204-3	1		1.01	mg/L	101	90	110			
WG514009CCB2	CCB	02/08/21 15:55				U	mg/L		-0.03	0.03			

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Copper, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513799													
WG513799ICV	ICV	02/03/21 20:18	II210127-1	2		1.942	mg/L	97	95	105			
WG513799ICB	ICB	02/03/21 20:24				U	mg/L		-0.03	0.03			
WG513799PQV	PQV	02/03/21 20:27	II210104-2	.0501		.05	mg/L	100	70	130			
WG513799SIC	SIC	02/03/21 20:30	II210118-1	.1002		.09	mg/L	90	80	120			
WG513799LFB	LFB	02/03/21 20:36	II210129-2	.5015		.491	mg/L	98	85	115			
WG513799CCV1	CCV	02/03/21 21:07	II210125-2	1		1.028	mg/L	103	90	110			
WG513799CCB1	CCB	02/03/21 21:10				U	mg/L		-0.03	0.03			
L63987-02AS	AS	02/03/21 21:42	II210129-2	.5015	U	.53	mg/L	106	85	115			
WG513799CCV2	CCV	02/03/21 21:45	II210125-2	1		1.031	mg/L	103	90	110			
WG513799CCB2	CCB	02/03/21 21:48				U	mg/L		-0.03	0.03			
L63987-02ASD	ASD	02/03/21 21:51	II210129-2	.5015	U	.533	mg/L	106	85	115	1	20	
WG513799CCV3	CCV	02/03/21 22:08	II210125-2	1		1.024	mg/L	102	90	110			
WG513799CCB3	CCB	02/03/21 22:11				U	mg/L		-0.03	0.03			

WG513871

WG513871ICV	ICV	02/04/21 20:29	II210127-1	2		1.969	mg/L	98	95	105			
WG513871ICB	ICB	02/04/21 20:35				U	mg/L		-0.03	0.03			
WG513871PQV	PQV	02/04/21 20:38	II210204-2	.0501		.049	mg/L	98	70	130			
WG513871SIC	SIC	02/04/21 20:41	II210118-1	.1002		.086	mg/L	86	80	120			
WG513871LFB	LFB	02/04/21 20:47	II210129-2	.5015		.494	mg/L	99	85	115			
L63972-01AS	AS	02/04/21 20:59	II210129-2	.5015	U	.484	mg/L	97	85	115			
L63972-01ASD	ASD	02/04/21 21:02	II210129-2	.5015	U	.496	mg/L	99	85	115	2	20	
WG513871CCV1	CCV	02/04/21 21:18	II210125-2	1		.995	mg/L	100	90	110			
WG513871CCB1	CCB	02/04/21 21:21				U	mg/L		-0.03	0.03			
WG513871CCV2	CCV	02/04/21 21:46	II210125-2	1		1.097	mg/L	110	90	110			
WG513871CCB2	CCB	02/04/21 21:49				U	mg/L		-0.03	0.03			

Copper, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513924													
WG513924ICV	ICV	02/06/21 0:51	II210119-2	2		1.917	mg/L	96	95	105			
WG513924ICB	ICB	02/06/21 0:57				U	mg/L		-0.03	0.03			
WG513924PQV	PQV	02/06/21 1:01	II210204-2	.0501		.041	mg/L	82	70	130			
WG513924SIC	SIC	02/06/21 1:04	II210119-1	.1002		.09	mg/L	90	80	120			
WG513885LRB	LRB	02/06/21 1:10				U	mg/L		-0.022	0.022			
WG513885LFB	LFB	02/06/21 1:14	II210129-2	.5015		.489	mg/L	98	85	115			
L63972-06LFM	LFM	02/06/21 1:37	II210129-2	.5015	U	.484	mg/L	97	70	130			
L63972-06LFMD	LFMD	02/06/21 1:40	II210129-2	.5015	U	.483	mg/L	96	70	130	0	20	
WG513924CCV1	CCV	02/06/21 1:43	II210204-3	1		.959	mg/L	96	90	110			
WG513924CCB1	CCB	02/06/21 1:46				U	mg/L		-0.03	0.03			
WG513924CCV2	CCV	02/06/21 2:22	II210204-3	1		.969	mg/L	97	90	110			
WG513924CCB2	CCB	02/06/21 2:25				U	mg/L		-0.03	0.03			
WG513924CCV3	CCV	02/06/21 2:48	II210204-3	1		.977	mg/L	98	90	110			
WG513924CCB3	CCB	02/06/21 2:51				U	mg/L		-0.03	0.03			

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Cyanide, WAD

SM4500-CN I,E-Colorimetric w/ distillation

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513969													
WG513969ICV	ICV	02/06/21 21:26	WI210127-7	.3		.2764	mg/L	92	90	110			
WG513969ICB	ICB	02/06/21 21:27				U	mg/L		-0.003	0.003			
WG513971													
WG513971CCV1	CCV	02/07/21 0:15	WI210127-6	.25		.2507	mg/L	100	90	110			
WG513971CCB1	CCB	02/07/21 0:16				U	mg/L		-0.003	0.003			
WG513899LRB	LRB	02/07/21 0:17				U	mg/L		-0.003	0.003			
WG513899LFB	LFB	02/07/21 0:18	WI210127-5	.2		.1847	mg/L	92	90	110			
WG513971CCV2	CCV	02/07/21 0:26	WI210127-6	.25		.2504	mg/L	100	90	110			
WG513971CCB2	CCB	02/07/21 0:27				U	mg/L		-0.003	0.003			
WG513971CCV3	CCV	02/07/21 0:36	WI210127-6	.25		.2435	mg/L	97	90	110			
WG513971CCB3	CCB	02/07/21 0:37				U	mg/L		-0.003	0.003			
L63972-04LFM	LFM	02/07/21 0:41	WI210127-5	.2	U	.1803	mg/L	90	90	110			
L63972-05DUP	DUP	02/07/21 0:42			U	U	mg/L				0	20	RA
WG513971CCV4	CCV	02/07/21 0:45	WI210127-6	.25		.2451	mg/L	98	90	110			
WG513971CCB4	CCB	02/07/21 0:46				U	mg/L		-0.003	0.003			
WG513972													
WG513972CCV1	CCV	02/07/21 2:23	WI210127-6	.25		.2462	mg/L	98	90	110			
WG513972CCB1	CCB	02/07/21 2:24				U	mg/L		-0.003	0.003			
WG513927LRB	LRB	02/07/21 2:25				U	mg/L		-0.003	0.003			
WG513927LFB	LFB	02/07/21 2:26	WI210127-5	.2		.185	mg/L	93	90	110			
L63972-06DUP	DUP	02/07/21 2:28			U	U	mg/L				0	20	RA
L63972-07LFM	LFM	02/07/21 2:30	WI210127-5	.2	U	.1815	mg/L	91	90	110			
WG513972CCV2	CCV	02/07/21 2:34	WI210127-6	.25		.2471	mg/L	99	90	110			
WG513972CCB2	CCB	02/07/21 2:35				U	mg/L		-0.003	0.003			
WG513972CCV3	CCV	02/07/21 2:45	WI210127-6	.25		.2463	mg/L	99	90	110			
WG513972CCB3	CCB	02/07/21 2:46				U	mg/L		-0.003	0.003			
WG513972CCV4	CCV	02/07/21 2:51	WI210127-6	.25		.2478	mg/L	99	90	110			
WG513972CCB4	CCB	02/07/21 2:52				U	mg/L		-0.003	0.003			

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Fluoride

SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514500													
WG514500ICV	ICV	02/17/21 12:22	WC210213-2	2.002		2.01	mg/L	100	90	110			
WG514500ICB	ICB	02/17/21 12:29				U	mg/L		-0.33	0.33			
WG514500PQV	PQV	02/17/21 12:33	WC210130-1	.35105		.35	mg/L	100	70	130			
WG514500LFB1	LFB	02/17/21 12:38	WC201221-2	5.015		5.15	mg/L	103	90	110			
WG514500CCV1	CCV	02/17/21 13:27	WC210213-2	2.002		2.05	mg/L	102	90	110			
WG514500CCB1	CCB	02/17/21 13:35				U	mg/L		-0.33	0.33			
L63972-05AS	AS	02/17/21 13:44	WC201221-2	5.015	.28	5.19	mg/L	98	90	110			
L63972-05ASD	ASD	02/17/21 13:48	WC201221-2	5.015	.28	5.15	mg/L	97	90	110	1	20	
WG514500CCV2	CCV	02/17/21 14:25	WC210213-2	2.002		2.07	mg/L	103	90	110			
WG514500CCB2	CCB	02/17/21 14:34				U	mg/L		-0.33	0.33			
L64083-01AS	AS	02/17/21 14:51	WC201221-2	5.015	1.69	6.46	mg/L	95	90	110			
L64083-01ASD	ASD	02/17/21 14:55	WC201221-2	5.015	1.69	6.46	mg/L	95	90	110	0	20	
WG514500LFB2	LFB	02/17/21 14:59	WC201221-2	5.015		5.24	mg/L	104	90	110			
WG514500CCV3	CCV	02/17/21 15:49	WC210213-2	2.002		2.04	mg/L	102	90	110			
WG514500CCB3	CCB	02/17/21 15:57				U	mg/L		-0.33	0.33			
WG514500CCV4	CCV	02/17/21 16:47	WC210213-2	2.002		2.09	mg/L	104	90	110			
WG514500CCB4	CCB	02/17/21 16:55				U	mg/L		-0.33	0.33			
WG514500CCV5	CCV	02/17/21 18:34	WC210213-2	2.002		2.06	mg/L	103	90	110			
WG514500CCB5	CCB	02/17/21 18:42				U	mg/L		-0.33	0.33			

Iron, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513799													
WG513799ICV	ICV	02/03/21 20:18	II210127-1	2		1.915	mg/L	96	95	105			
WG513799ICB	ICB	02/03/21 20:24				U	mg/L		-0.18	0.18			
WG513799PQV	PQV	02/03/21 20:27	II210104-2	.15027		.133	mg/L	89	70	130			
WG513799SIC	SIC	02/03/21 20:30	II210118-1	200.51027		192.5	mg/L	96	1	200			
WG513799LFB	LFB	02/03/21 20:36	II210129-2	1.0018		.965	mg/L	96	85	115			
L63972-02AS	AS	02/03/21 20:58	II210129-2	1.0018	U	1.077	mg/L	108	85	115			
L63972-02ASD	ASD	02/03/21 21:01	II210129-2	1.0018	U	1.174	mg/L	117	85	115	9	20	MA
WG513799CCV1	CCV	02/03/21 21:07	II210125-2	1		1.018	mg/L	102	90	110			
WG513799CCB1	CCB	02/03/21 21:10				U	mg/L		-0.18	0.18			
L63987-02AS	AS	02/03/21 21:42	II210129-2	1.0018	U	.992	mg/L	99	85	115			
WG513799CCV2	CCV	02/03/21 21:45	II210125-2	1		1.019	mg/L	102	90	110			
WG513799CCB2	CCB	02/03/21 21:48				U	mg/L		-0.18	0.18			
L63987-02ASD	ASD	02/03/21 21:51	II210129-2	1.0018	U	.999	mg/L	100	85	115	1	20	
WG513799CCV3	CCV	02/03/21 22:08	II210125-2	1		1.01	mg/L	101	90	110			
WG513799CCB3	CCB	02/03/21 22:11				U	mg/L		-0.18	0.18			

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Iron, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513924													
WG513924ICV	ICV	02/06/21 0:51	II210119-2	2		1.916	mg/L	96	95	105			
WG513924ICB	ICB	02/06/21 0:57				U	mg/L		-0.18	0.18			
WG513924PQV	PQV	02/06/21 1:01	II210204-2	.15027		.135	mg/L	90	70	130			
WG513924SIC	SIC	02/06/21 1:04	II210119-1	200.51027		200.5	mg/L	100	1	200			
WG513885LRB	LRB	02/06/21 1:10				U	mg/L		-0.132	0.132			
WG513885LFB	LFB	02/06/21 1:14	II210129-2	1.0018		.995	mg/L	99	85	115			
L63972-06LFM	LFM	02/06/21 1:37	II210129-2	1.0018	U	.976	mg/L	97	70	130			
L63972-06LFMD	LFMD	02/06/21 1:40	II210129-2	1.0018	U	.971	mg/L	97	70	130	1	20	
WG513924CCV1	CCV	02/06/21 1:43	II210204-3	1		.965	mg/L	97	90	110			
WG513924CCB1	CCB	02/06/21 1:46				U	mg/L		-0.18	0.18			
WG513924CCV2	CCV	02/06/21 2:22	II210204-3	1		.969	mg/L	97	90	110			
WG513924CCB2	CCB	02/06/21 2:25				U	mg/L		-0.18	0.18			
WG513924CCV3	CCV	02/06/21 2:48	II210204-3	1		.985	mg/L	99	90	110			
WG513924CCB3	CCB	02/06/21 2:51				U	mg/L		-0.18	0.18			

Lead, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514206													
WG514206ICV	ICV	02/11/21 14:39	MS210115-2	.05		.05102	mg/L	102	90	110			
WG514206ICB	ICB	02/11/21 14:41				U	mg/L		-0.00022	0.00022			
WG514206LFB	LFB	02/11/21 14:43	MS201228-2	.05005		.05179	mg/L	103	85	115			
WG514206CCV1	CCV	02/11/21 14:46	MS210122-2	.25025		.23501	mg/L	94	90	110			
WG514206CCB1	CCB	02/11/21 14:48				U	mg/L		-0.0003	0.0003			
L63972-03AS	AS	02/11/21 14:59	MS201228-2	.05005	U	.04883	mg/L	98	70	130			
L63972-03ASD	ASD	02/11/21 15:01	MS201228-2	.05005	U	.04796	mg/L	96	70	130	2	20	
WG514206CCV2	CCV	02/11/21 15:06	MS210122-2	.25025		.23493	mg/L	94	90	110			
WG514206CCB2	CCB	02/11/21 15:08				.00011	mg/L		-0.0003	0.0003			
WG514206CCV3	CCV	02/11/21 15:28	MS210122-2	.25025		.23398	mg/L	93	90	110			
WG514206CCB3	CCB	02/11/21 15:29				U	mg/L		-0.0003	0.0003			
WG514206CCV4	CCV	02/11/21 15:39	MS210122-2	.25025		.22912	mg/L	92	90	110			
WG514206CCB4	CCB	02/11/21 15:40				U	mg/L		-0.0003	0.0003			

Lead, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514078													
WG514078ICV	ICV	02/10/21 8:49	MS210115-2	.05		.04997	mg/L	100	90	110			
WG514078ICB	ICB	02/10/21 8:51				U	mg/L		-0.0003	0.0003			
WG513920LRB	LRB	02/10/21 8:53				U	mg/L		-0.00022	0.00022			
WG513920LFB	LFB	02/10/21 8:55	MS201228-2	.05005		.04781	mg/L	96	85	115			
L63972-03LFM	LFM	02/10/21 9:05	MS201228-2	.05005	U	.04878	mg/L	97	70	130			
L63972-03LFMD	LFMD	02/10/21 9:07	MS201228-2	.05005	U	.0497	mg/L	99	70	130	2	20	
WG514078CCV1	CCV	02/10/21 9:11	MS210122-2	.25025		.24808	mg/L	99	90	110			
WG514078CCB1	CCB	02/10/21 9:12				U	mg/L		-0.0003	0.0003			
WG514078CCV2	CCV	02/10/21 9:32	MS210122-2	.25025		.24556	mg/L	98	90	110			
WG514078CCB2	CCB	02/10/21 9:34				U	mg/L		-0.0003	0.0003			
WG514078CCV3	CCV	02/10/21 9:43	MS210122-2	.25025		.24303	mg/L	97	90	110			
WG514078CCB3	CCB	02/10/21 9:45				.00012	mg/L		-0.0003	0.0003			

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Magnesium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513799													
WG513799ICV	ICV	02/03/21 20:18	II210127-1	100		96.92	mg/L	97	95	105			
WG513799ICB	ICB	02/03/21 20:24				U	mg/L		-0.6	0.6			
WG513799PQV	PQV	02/03/21 20:27	II210104-2	1.0001		.97	mg/L	97	70	130			
WG513799SIC	SIC	02/03/21 20:30	II210118-1	201.0201		200.7	mg/L	100	1	200			
WG513799LFB	LFB	02/03/21 20:36	II210129-2	50.00226		49.44	mg/L	99	85	115			
L63972-02AS	AS	02/03/21 20:58	II210129-2	50.00226	15.9	67.88	mg/L	104	85	115			
L63972-02ASD	ASD	02/03/21 21:01	II210129-2	50.00226	15.9	68.26	mg/L	105	85	115	1	20	
WG513799CCV1	CCV	02/03/21 21:07	II210125-2	50		51.36	mg/L	103	90	110			
WG513799CCB1	CCB	02/03/21 21:10				U	mg/L		-0.6	0.6			
L63987-02AS	AS	02/03/21 21:42	II210129-2	50.00226	215	252.5	mg/L	75	85	115			M3
WG513799CCV2	CCV	02/03/21 21:45	II210125-2	50		50.95	mg/L	102	90	110			
WG513799CCB2	CCB	02/03/21 21:48				U	mg/L		-0.6	0.6			
L63987-02ASD	ASD	02/03/21 21:51	II210129-2	50.00226	215	254.8	mg/L	80	85	115	1	20	M3
WG513799CCV3	CCV	02/03/21 22:08	II210125-2	50		50.69	mg/L	101	90	110			
WG513799CCB3	CCB	02/03/21 22:11				U	mg/L		-0.6	0.6			

Manganese, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513799													
WG513799ICV	ICV	02/03/21 20:18	II210127-1	2		1.914	mg/L	96	95	105			
WG513799ICB	ICB	02/03/21 20:24				U	mg/L		-0.03	0.03			
WG513799PQV	PQV	02/03/21 20:27	II210104-2	.0501		.045	mg/L	90	70	130			
WG513799SIC	SIC	02/03/21 20:30	II210118-1	50.1001		46.15	mg/L	92	1	200			
WG513799LFB	LFB	02/03/21 20:36	II210129-2	.5005		.474	mg/L	95	85	115			
L63972-02AS	AS	02/03/21 20:58	II210129-2	.5005	.037	.548	mg/L	102	85	115			
L63972-02ASD	ASD	02/03/21 21:01	II210129-2	.5005	.037	.552	mg/L	103	85	115	1	20	
WG513799CCV1	CCV	02/03/21 21:07	II210125-2	1		1.025	mg/L	103	90	110			
WG513799CCB1	CCB	02/03/21 21:10				U	mg/L		-0.03	0.03			
L63987-02AS	AS	02/03/21 21:42	II210129-2	.5005	.439	.899	mg/L	92	85	115			
WG513799CCV2	CCV	02/03/21 21:45	II210125-2	1		1.021	mg/L	102	90	110			
WG513799CCB2	CCB	02/03/21 21:48				U	mg/L		-0.03	0.03			
L63987-02ASD	ASD	02/03/21 21:51	II210129-2	.5005	.439	.906	mg/L	93	85	115	1	20	
WG513799CCV3	CCV	02/03/21 22:08	II210125-2	1		1.013	mg/L	101	90	110			
WG513799CCB3	CCB	02/03/21 22:11				U	mg/L		-0.03	0.03			

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Manganese, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513924													
WG513924ICV	ICV	02/06/21 0:51	II210119-2	2		1.92	mg/L	96	95	105			
WG513924ICB	ICB	02/06/21 0:57				U	mg/L		-0.03	0.03			
WG513924PQV	PQV	02/06/21 1:01	II210204-2	.0501		.04	mg/L	80	70	130			
WG513924SIC	SIC	02/06/21 1:04	II210119-1	50.1001		46.28	mg/L	92	1	200			
WG513885LRB	LRB	02/06/21 1:10				U	mg/L		-0.022	0.022			
WG513885LFB	LFB	02/06/21 1:14	II210129-2	.5005		.485	mg/L	97	85	115			
L63972-06LFM	LFM	02/06/21 1:37	II210129-2	.5005	U	.477	mg/L	95	70	130			
L63972-06LFMD	LFMD	02/06/21 1:40	II210129-2	.5005	U	.476	mg/L	95	70	130	0	20	
WG513924CCV1	CCV	02/06/21 1:43	II210204-3	1		.971	mg/L	97	90	110			
WG513924CCB1	CCB	02/06/21 1:46				U	mg/L		-0.03	0.03			
WG513924CCV2	CCV	02/06/21 2:22	II210204-3	1		.981	mg/L	98	90	110			
WG513924CCB2	CCB	02/06/21 2:25				U	mg/L		-0.03	0.03			
WG513924CCV3	CCV	02/06/21 2:48	II210204-3	1		.99	mg/L	99	90	110			
WG513924CCB3	CCB	02/06/21 2:51				U	mg/L		-0.03	0.03			

Mercury, dissolved

M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514129													
WG514129ICV	ICV	02/11/21 10:22	HG210118-2	.005		.00482	mg/L	96	95	105			
WG514129ICB	ICB	02/11/21 10:23				U	mg/L		-0.0002	0.0002			
WG514129PQV	PQV	02/11/21 10:24	HG210208-4	.001001		.00095	mg/L	95	70	130			
WG514129LRB	LRB	02/11/21 10:25				U	mg/L		-0.00044	0.00044			
WG514129LFB	LFB	02/11/21 10:26	HG210208-5	.002002		.00194	mg/L	97	85	115			
L63972-02LFM	LFM	02/11/21 10:31	HG210208-5	.002002	U	.00187	mg/L	93	85	115			
L63972-02LFMD	LFMD	02/11/21 10:32	HG210208-5	.002002	U	.00184	mg/L	92	85	115	2	20	
WG514129CCV1	CCV	02/11/21 10:34	HG210118-2	.005		.00483	mg/L	97	90	110			
WG514129CCB1	CCB	02/11/21 10:35				U	mg/L		-0.0002	0.0002			
WG514129CCV2	CCV	02/11/21 10:45	HG210118-2	.005		.00484	mg/L	97	90	110			
WG514129CCB2	CCB	02/11/21 10:46				U	mg/L		-0.0002	0.0002			
WG514129CCV3	CCV	02/11/21 10:54	HG210118-2	.005		.00486	mg/L	97	90	110			
WG514129CCB3	CCB	02/11/21 10:55				U	mg/L		-0.0002	0.0002			

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Mercury, total

M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514030													
WG514030ICV	ICV	02/09/21 13:13	HG210118-2	.005		.00515	mg/L	103	90	110			
WG514030ICB	ICB	02/09/21 13:13				U	mg/L		-0.0006	0.0006			
WG514032													
WG514032CCV1	CCV	02/09/21 13:22	HG210118-2	.005		.00481	mg/L	96	90	110			
WG514032CCB1	CCB	02/09/21 13:23				U	mg/L		-0.0002	0.0002			
WG514032PQV	PQV	02/09/21 13:24	HG210208-4	.001001		.00092	mg/L	92	70	130			
WG514032LRB	LRB	02/09/21 13:25				U	mg/L		-0.00044	0.00044			
WG514032LFB	LFB	02/09/21 13:26	HG210208-5	.002002		.00184	mg/L	92	85	115			
L63972-03LFM	LFM	02/09/21 13:32	HG210208-5	.002002	U	.00188	mg/L	94	85	115			
L63972-03LFMD	LFMD	02/09/21 13:33	HG210208-5	.002002	U	.00187	mg/L	93	85	115	1	20	
WG514032CCV2	CCV	02/09/21 13:34	HG210118-2	.005		.00487	mg/L	97	90	110			
WG514032CCB2	CCB	02/09/21 13:35				U	mg/L		-0.0002	0.0002			
WG514032CCV3	CCV	02/09/21 13:45	HG210118-2	.005		.0048	mg/L	96	90	110			
WG514032CCB3	CCB	02/09/21 13:46				U	mg/L		-0.0002	0.0002			
WG514032CCV4	CCV	02/09/21 13:54	HG210118-2	.005		.00482	mg/L	96	90	110			
WG514032CCB4	CCB	02/09/21 13:55				U	mg/L		-0.0002	0.0002			

Molybdenum, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514206													
WG514206ICV	ICV	02/11/21 14:39	MS210115-2	.01992		.02045	mg/L	103	90	110			
WG514206ICB	ICB	02/11/21 14:41				U	mg/L		-0.00044	0.00044			
WG514206LFB	LFB	02/11/21 14:43	MS201228-2	.0501		.05111	mg/L	102	85	115			
WG514206CCV1	CCV	02/11/21 14:46	MS210122-2	.1002		.10288	mg/L	103	90	110			
WG514206CCB1	CCB	02/11/21 14:48				U	mg/L		-0.0006	0.0006			
L63972-03AS	AS	02/11/21 14:59	MS201228-2	.0501	.00288	.05433	mg/L	103	70	130			
L63972-03ASD	ASD	02/11/21 15:01	MS201228-2	.0501	.00288	.05423	mg/L	102	70	130	0	20	
WG514206CCV2	CCV	02/11/21 15:06	MS210122-2	.1002		.09924	mg/L	99	90	110			
WG514206CCB2	CCB	02/11/21 15:08				U	mg/L		-0.0006	0.0006			
WG514206CCV3	CCV	02/11/21 15:28	MS210122-2	.1002		.10055	mg/L	100	90	110			
WG514206CCB3	CCB	02/11/21 15:29				U	mg/L		-0.0006	0.0006			
WG514206CCV4	CCV	02/11/21 15:39	MS210122-2	.1002		.09841	mg/L	98	90	110			
WG514206CCB4	CCB	02/11/21 15:40				U	mg/L		-0.0006	0.0006			

Molybdenum, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514174													
WG514174ICV	ICV	02/12/21 11:34	MS210115-2	.01992		.02155	mg/L	108	90	110			
WG514174ICB	ICB	02/12/21 11:36				U	mg/L		-0.0006	0.0006			
WG513920LRB	LRB	02/12/21 11:38				U	mg/L		-0.00044	0.00044			
WG513920LFB	LFB	02/12/21 11:40	MS201228-2	.0501		.0487	mg/L	97	85	115			
L63972-03LFM	LFM	02/12/21 11:47	MS201228-2	.0501	.00273	.05326	mg/L	101	70	130			
L63972-03LFMD	LFMD	02/12/21 11:49	MS201228-2	.0501	.00273	.05369	mg/L	102	70	130	1	20	
WG514174CCV1	CCV	02/12/21 11:56	MS210122-2	.1002		.09988	mg/L	100	90	110			
WG514174CCB1	CCB	02/12/21 11:57				U	mg/L		-0.0006	0.0006			
WG514174CCV2	CCV	02/12/21 12:13	MS210122-2	.1002		.09959	mg/L	99	90	110			
WG514174CCB2	CCB	02/12/21 12:15				U	mg/L		-0.0006	0.0006			

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nitrate/Nitrite as N

M353.2 - H2SO4 preserved

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514306													
WG514306ICV	ICV	02/12/21 22:22	WI201117-3	2.416		2.38	mg/L	99	90	110			
WG514306ICB	ICB	02/12/21 22:23				U	mg/L		-0.02	0.02			
WG514308													
WG514308CCV1	CCV	02/12/21 23:46	WI210209-5	2		2.014	mg/L	101	90	110			
WG514308CCB1	CCB	02/12/21 23:48				U	mg/L		-0.02	0.02			
WG514308LFB	LFB	02/12/21 23:50	WI201001-11	2		1.992	mg/L	100	90	110			
L63946-01AS	AS	02/12/21 23:52	WI201001-11	2	U	2.089	mg/L	104	90	110			
L63948-01DUP	DUP	02/12/21 23:55			U	U	mg/L				0	20	RA
WG514308CCV2	CCV	02/13/21 0:02	WI210209-5	2		2.004	mg/L	100	90	110			
WG514308CCB2	CCB	02/13/21 0:05				U	mg/L		-0.02	0.02			
L63972-06AS	AS	02/13/21 0:11	WI201001-11	2	.034	2.091	mg/L	103	90	110			
L63972-07DUP	DUP	02/13/21 0:14			.084	.082	mg/L				2	20	RA
WG514308CCV3	CCV	02/13/21 0:19	WI210209-5	2		1.989	mg/L	99	90	110			
WG514308CCB3	CCB	02/13/21 0:22				U	mg/L		-0.02	0.02			
WG514308CCV4	CCV	02/13/21 0:29	WI210209-5	2		1.992	mg/L	100	90	110			
WG514308CCB4	CCB	02/13/21 0:32				U	mg/L		-0.02	0.02			

Phosphorus, total

M365.1 - Auto Ascorbic Acid (digest)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514257													
WG514257ICV	ICV	02/11/21 23:28	WI201222-5	.65228		.663	mg/L	102	90	110			
WG514257ICB	ICB	02/11/21 23:31				U	mg/L		-0.01	0.01			
WG514259													
WG514259CCV1	CCV	02/12/21 0:40	WI201222-3	.5		.493	mg/L	99	90	110			
WG514259CCB1	CCB	02/12/21 0:41				U	mg/L		-0.01	0.01			
WG514207LRB	LRB	02/12/21 0:42				U	mg/L		-0.01	0.01			
WG514207LFB	LFB	02/12/21 0:43	WI210129-5	.5		.468	mg/L	94	90	110			
L63972-01LFM	LFM	02/12/21 0:45	WI210129-5	.5	U	.473	mg/L	95	90	110			
L63972-02DUP	DUP	02/12/21 0:48			U	U	mg/L				0	20	RA
WG514259CCV2	CCV	02/12/21 0:53	WI201222-3	.5		.494	mg/L	99	90	110			
WG514259CCB2	CCB	02/12/21 0:54				U	mg/L		-0.01	0.01			
WG514259CCV3	CCV	02/12/21 1:07	WI201222-3	.5		.483	mg/L	97	90	110			
WG514259CCB3	CCB	02/12/21 1:08				U	mg/L		-0.01	0.01			
WG514259CCV4	CCV	02/12/21 1:20	WI201222-3	.5		.495	mg/L	99	90	110			
WG514259CCB4	CCB	02/12/21 1:22				U	mg/L		-0.01	0.01			
WG514259CCV5	CCV	02/12/21 1:25	WI201222-3	.5		.492	mg/L	98	90	110			
WG514259CCB5	CCB	02/12/21 1:26				U	mg/L		-0.01	0.01			

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Potassium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513799													
WG513799ICV	ICV	02/03/21 20:18	II210127-1	20		19.41	mg/L	97	95	105			
WG513799ICB	ICB	02/03/21 20:24				U	mg/L		-0.6	0.6			
WG513799PQV	PQV	02/03/21 20:27	II210104-2	1.004		1.05	mg/L	105	70	130			
WG513799SIC	SIC	02/03/21 20:30	II210118-1	1.004		1.05	mg/L	105	80	120			
WG513799LFB	LFB	02/03/21 20:36	II210129-2	99.96847		98.38	mg/L	98	85	115			
L63972-02AS	AS	02/03/21 20:58	II210129-2	99.96847	2.62	108.1	mg/L	106	85	115			
L63972-02ASD	ASD	02/03/21 21:01	II210129-2	99.96847	2.62	108.8	mg/L	106	85	115	1	20	
WG513799CCV1	CCV	02/03/21 21:07	II210125-2	10		10.23	mg/L	102	90	110			
WG513799CCB1	CCB	02/03/21 21:10				U	mg/L		-0.6	0.6			
L63987-02AS	AS	02/03/21 21:42	II210129-2	99.96847	3.44	109.8	mg/L	106	85	115			
WG513799CCV2	CCV	02/03/21 21:45	II210125-2	10		10.34	mg/L	103	90	110			
WG513799CCB2	CCB	02/03/21 21:48				U	mg/L		-0.6	0.6			
L63987-02ASD	ASD	02/03/21 21:51	II210129-2	99.96847	3.44	111.1	mg/L	108	85	115	1	20	
WG513799CCV3	CCV	02/03/21 22:08	II210125-2	10		10.34	mg/L	103	90	110			
WG513799CCB3	CCB	02/03/21 22:11				U	mg/L		-0.6	0.6			

Residue, Filterable (TDS) @180C

SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513604													
WG513604PBW	PBW	01/29/21 14:15				U	mg/L		-20	20			
WG513604LCSW	LCSW	01/29/21 14:17	PCN62440	1000		980	mg/L	98	80	120			
L63972-03DUP	DUP	01/29/21 15:15			242	242	mg/L				0	10	
WG513635													
WG513635PBW	PBW	01/30/21 10:36				U	mg/L		-20	20			
WG513635LCSW	LCSW	01/30/21 10:38	PCN62440	1000		992	mg/L	99	80	120			
WG513635PQV	PQV	01/30/21 10:41	WC201221-1	40		42	mg/L	105	50	150			
L63972-07DUP	DUP	01/30/21 11:04			744	742	mg/L				0	10	

Residue, Non-Filterable (TSS) @105C

SM2540D

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513629													
WG513629PBW	PBW	01/29/21 19:45				U	mg/L		-5	5			
WG513629LCSW	LCSW	01/29/21 19:47	PCN62893	100		97	mg/L	97	80	120			
L63972-04DUP	DUP	01/29/21 20:34			U	U	mg/L				0	10	RA
WG513705													
WG513705PBW	PBW	02/02/21 6:31				U	mg/L		-2	2			
WG513705LCSW	LCSW	02/02/21 6:59	PCN62893	100		94	mg/L	94	80	120			
L63954-01DUP	DUP	02/02/21 7:56			U	U	mg/L				0	10	RA

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Selenium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514206													
WG514206ICV	ICV	02/11/21 14:39	MS210115-2	.05		.04926	mg/L	99	90	110			
WG514206ICB	ICB	02/11/21 14:41				U	mg/L		-0.00022	0.00022			
WG514206LFB	LFB	02/11/21 14:43	MS201228-2	.05		.04922	mg/L	98	85	115			
WG514206CCV1	CCV	02/11/21 14:46	MS210122-2	.25		.24849	mg/L	99	90	110			
L63972-03AS	AS	02/11/21 14:59	MS201228-2	.05	.00035	.05413	mg/L	108	70	130			
L63972-03ASD	ASD	02/11/21 15:01	MS201228-2	.05	.00035	.05247	mg/L	104	70	130	3	20	
WG514206CCV2	CCV	02/11/21 15:06	MS210122-2	.25		.25737	mg/L	103	90	110			
WG514206CCB2	CCB	02/11/21 15:08				.00019	mg/L		-0.0003	0.0003			
WG514206CCV3	CCV	02/11/21 15:28	MS210122-2	.25		.26359	mg/L	105	90	110			
WG514206CCB3	CCB	02/11/21 15:29				.00029	mg/L		-0.0003	0.0003			
WG514206CCV4	CCV	02/11/21 15:39	MS210122-2	.25		.24751	mg/L	99	90	110			
WG514206CCB4	CCB	02/11/21 15:40				.00018	mg/L		-0.0003	0.0003			

WG514291

WG514291ICV	ICV	02/12/21 14:47	MS210115-2	.05		.04965	mg/L	99	90	110			
WG514291ICB	ICB	02/12/21 14:49				U	mg/L		-0.00022	0.00022			
WG514291LFB	LFB	02/12/21 14:51	MS201228-2	.05		.04782	mg/L	96	85	115			
WG514291CCV1	CCV	02/12/21 15:22	MS210212-2	.25		.23773	mg/L	95	90	110			
WG514291CCB1	CCB	02/12/21 15:24				.00013	mg/L		-0.0003	0.0003			
L63971-01AS	AS	02/12/21 15:31	MS201228-2	.05	.00019	.047	mg/L	94	70	130			
L63971-01ASD	ASD	02/12/21 15:33	MS201228-2	.05	.00019	.0456	mg/L	91	70	130	3	20	
WG514291CCV2	CCV	02/12/21 15:44	MS210212-2	.25		.23927	mg/L	96	90	110			
WG514291CCB2	CCB	02/12/21 15:45				.00019	mg/L		-0.0003	0.0003			
WG514291CCV3	CCV	02/12/21 16:04	MS210212-2	.25		.22762	mg/L	91	90	110			
WG514291CCB3	CCB	02/12/21 16:05				.00023	mg/L		-0.0003	0.0003			
L64122-01AS	AS	02/12/21 16:09	MS201228-2	.05	.00012	.04634	mg/L	92	70	130			
L64122-01ASD	ASD	02/12/21 16:11	MS201228-2	.05	.00012	.04739	mg/L	95	70	130	2	20	
WG514291CCV4	CCV	02/12/21 16:14	MS210212-2	.25		.2429	mg/L	97	90	110			
WG514291CCB4	CCB	02/12/21 16:16				U	mg/L		-0.0003	0.0003			

Selenium, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514078													
WG514078ICV	ICV	02/10/21 8:49	MS210115-2	.05		.04917	mg/L	98	90	110			
WG514078ICB	ICB	02/10/21 8:51				U	mg/L		-0.0003	0.0003			
WG513920LRB	LRB	02/10/21 8:53				U	mg/L		-0.00022	0.00022			
WG513920LFB	LFB	02/10/21 8:55	MS201228-2	.05		.04707	mg/L	94	85	115			
L63972-03LFM	LFM	02/10/21 9:05	MS201228-2	.05	.00031	.04738	mg/L	94	70	130			
L63972-03LFMD	LFMD	02/10/21 9:07	MS201228-2	.05	.00031	.04819	mg/L	96	70	130	2	20	
WG514078CCV1	CCV	02/10/21 9:11	MS210122-2	.25		.25546	mg/L	102	90	110			
WG514078CCB1	CCB	02/10/21 9:12				.00015	mg/L		-0.0003	0.0003			
WG514078CCV2	CCV	02/10/21 9:32	MS210122-2	.25		.24296	mg/L	97	90	110			
WG514078CCB2	CCB	02/10/21 9:34				.00016	mg/L		-0.0003	0.0003			
WG514078CCV3	CCV	02/10/21 9:43	MS210122-2	.25		.23924	mg/L	96	90	110			
WG514078CCB3	CCB	02/10/21 9:45				.00016	mg/L		-0.0003	0.0003			

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Silver, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514206													
WG514206ICV	ICV	02/11/21 14:39	MS210115-2	.02004		.02014	mg/L	100	90	110			
WG514206ICB	ICB	02/11/21 14:41				U	mg/L		-0.00022	0.00022			
WG514206LFB	LFB	02/11/21 14:43	MS201228-2	.01002		.01097	mg/L	109	85	115			
WG514206CCV1	CCV	02/11/21 14:46	MS210122-2	.02505		.02926	mg/L	117	90	110			VC
WG514206CCB1	CCB	02/11/21 14:48				.00046	mg/L		-0.0003	0.0003			BE
L63972-03AS	AS	02/11/21 14:59	MS201228-2	.01002	.00038	.01105	mg/L	106	70	130			
L63972-03ASD	ASD	02/11/21 15:01	MS201228-2	.01002	.00038	.01033	mg/L	99	70	130	7	20	
WG514206CCV2	CCV	02/11/21 15:06	MS210122-2	.02505		.02691	mg/L	107	90	110			
WG514206CCB2	CCB	02/11/21 15:08				.00014	mg/L		-0.0003	0.0003			
WG514206CCV3	CCV	02/11/21 15:28	MS210122-2	.02505		.02712	mg/L	108	90	110			
WG514206CCB3	CCB	02/11/21 15:29				U	mg/L		-0.0003	0.0003			
WG514206CCV4	CCV	02/11/21 15:39	MS210122-2	.02505		.02636	mg/L	105	90	110			
WG514206CCB4	CCB	02/11/21 15:40				U	mg/L		-0.0003	0.0003			
WG514291													
WG514291ICV	ICV	02/12/21 14:47	MS210115-2	.02004		.01939	mg/L	97	90	110			
WG514291ICB	ICB	02/12/21 14:49				U	mg/L		-0.00022	0.00022			
WG514291LFB	LFB	02/12/21 14:51	MS201228-2	.01002		.00975	mg/L	97	85	115			
WG514291CCV1	CCV	02/12/21 15:22	MS210212-2	.02505		.02472	mg/L	99	90	110			
WG514291CCB1	CCB	02/12/21 15:24				U	mg/L		-0.0003	0.0003			
L63971-01AS	AS	02/12/21 15:31	MS201228-2	.01002	U	.00954	mg/L	95	70	130			
L63971-01ASD	ASD	02/12/21 15:33	MS201228-2	.01002	U	.00953	mg/L	95	70	130	0	20	
WG514291CCV2	CCV	02/12/21 15:44	MS210212-2	.02505		.02499	mg/L	100	90	110			
WG514291CCB2	CCB	02/12/21 15:45				U	mg/L		-0.0003	0.0003			
WG514291CCV3	CCV	02/12/21 16:04	MS210212-2	.02505		.02366	mg/L	94	90	110			
WG514291CCB3	CCB	02/12/21 16:05				U	mg/L		-0.0003	0.0003			
L64122-01AS	AS	02/12/21 16:09	MS201228-2	.01002	U	.0084	mg/L	84	70	130			
L64122-01ASD	ASD	02/12/21 16:11	MS201228-2	.01002	U	.00882	mg/L	88	70	130	5	20	
WG514291CCV4	CCV	02/12/21 16:14	MS210212-2	.02505		.02477	mg/L	99	90	110			
WG514291CCB4	CCB	02/12/21 16:16				U	mg/L		-0.0003	0.0003			

Silver, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514078													
WG514078ICV	ICV	02/10/21 8:49	MS210115-2	.02004		.018	mg/L	90	90	110			
WG514078ICB	ICB	02/10/21 8:51				U	mg/L		-0.0003	0.0003			
WG513920LRB	LRB	02/10/21 8:53				U	mg/L		-0.00022	0.00022			
WG513920LFB	LFB	02/10/21 8:55	MS201228-2	.01002		.00999	mg/L	100	85	115			
L63972-03LFM	LFM	02/10/21 9:05	MS201228-2	.01002	U	.00963	mg/L	96	70	130			
L63972-03LFMD	LFMD	02/10/21 9:07	MS201228-2	.01002	U	.00983	mg/L	98	70	130	2	20	
WG514078CCV1	CCV	02/10/21 9:11	MS210122-2	.02505		.02983	mg/L	119	90	110			VC
WG514078CCB1	CCB	02/10/21 9:12				U	mg/L		-0.0003	0.0003			
WG514078CCV2	CCV	02/10/21 9:32	MS210122-2	.02505		.0295	mg/L	118	90	110			VC
WG514078CCB2	CCB	02/10/21 9:34				U	mg/L		-0.0003	0.0003			
WG514078CCB3	CCB	02/10/21 9:45				U	mg/L		-0.0003	0.0003			

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sodium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513799													
WG513799ICV	ICV	02/03/21 20:18	II210127-1	100		95.98	mg/L	96	95	105			
WG513799ICB	ICB	02/03/21 20:24				U	mg/L		-0.6	0.6			
WG513799PQV	PQV	02/03/21 20:27	II210104-2	.998		1.03	mg/L	103	70	130			
WG513799SIC	SIC	02/03/21 20:30	II210118-1	.998		1.11	mg/L	111	80	120			
WG513799LFB	LFB	02/03/21 20:36	II210129-2	100.0141		97.01	mg/L	97	85	115			
L63972-02AS	AS	02/03/21 20:58	II210129-2	100.0141	41.4	142.3	mg/L	101	85	115			
L63972-02ASD	ASD	02/03/21 21:01	II210129-2	100.0141	41.4	145.3	mg/L	104	85	115	2	20	
WG513799CCV1	CCV	02/03/21 21:07	II210125-2	50		51.01	mg/L	102	90	110			
WG513799CCB1	CCB	02/03/21 21:10				U	mg/L		-0.6	0.6			
L63987-02AS	AS	02/03/21 21:42	II210129-2	100.0141	766	797.8	mg/L	32	85	115			M3
WG513799CCV2	CCV	02/03/21 21:45	II210125-2	50		51.23	mg/L	102	90	110			
WG513799CCB2	CCB	02/03/21 21:48				.22	mg/L		-0.6	0.6			
L63987-02ASD	ASD	02/03/21 21:51	II210129-2	100.0141	766	810	mg/L	44	85	115	2	20	M3
WG513799CCV3	CCV	02/03/21 22:08	II210125-2	50		51.08	mg/L	102	90	110			
WG513799CCB3	CCB	02/03/21 22:11				.33	mg/L		-0.6	0.6			

Sulfate

D516-02/-07/-11 - Turbidimetric

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513886													
WG513886ICB	ICB	02/04/21 11:41				U	mg/L		-3	3			
WG513886ICV	ICV	02/04/21 11:41	WI210121-1	20		20.5	mg/L	103	90	110			
WG513886CCV1	CCV	02/04/21 13:07	WI210121-2	25		25.4	mg/L	102	90	110			
WG513886CCB1	CCB	02/04/21 13:07				U	mg/L		-3	3			
WG513886LFB	LFB	02/04/21 13:07	WI210105-3	10		9.7	mg/L	97	90	110			
WG513886CCV2	CCV	02/04/21 13:09	WI210121-2	25		24.8	mg/L	99	90	110			
WG513886CCB2	CCB	02/04/21 13:09				U	mg/L		-3	3			
WG513886CCV3	CCV	02/04/21 13:11	WI210121-2	25		24.6	mg/L	98	90	110			
WG513886CCB3	CCB	02/04/21 13:11				U	mg/L		-3	3			
WG513886CCV4	CCV	02/04/21 13:12	WI210121-2	25		24.5	mg/L	98	90	110			
WG513886CCB4	CCB	02/04/21 13:12				U	mg/L		-3	3			
WG513886CCV5	CCV	02/04/21 13:16	WI210121-2	25		25.1	mg/L	100	90	110			
WG513886CCB5	CCB	02/04/21 13:16				U	mg/L		-3	3			
L63972-01DUP	DUP	02/04/21 13:18			81.5	80.9	mg/L				1	20	
WG513886CCV6	CCV	02/04/21 13:18	WI210121-2	25		24.4	mg/L	98	90	110			
WG513886CCB6	CCB	02/04/21 13:19				U	mg/L		-3	3			
L63972-02AS	AS	02/04/21 13:21	SO4TURB5X	10	79.9	89.6	mg/L	97	90	110			
WG513886CCV7	CCV	02/04/21 13:23	WI210121-2	25		24.6	mg/L	98	90	110			
WG513886CCB7	CCB	02/04/21 13:23				U	mg/L		-3	3			
WG513886CCV8	CCV	02/04/21 14:05	WI210121-2	25		25.5	mg/L	102	90	110			
WG513886CCB8	CCB	02/04/21 14:05				U	mg/L		-3	3			
WG513886CCV9	CCV	02/04/21 14:06	WI210121-2	25		24.7	mg/L	99	90	110			
WG513886CCB9	CCB	02/04/21 14:06				U	mg/L		-3	3			
WG513886CCV10	CCV	02/04/21 14:13	WI210121-2	25		24.7	mg/L	99	90	110			
WG513886CCB10	CCB	02/04/21 14:13				U	mg/L		-3	3			
WG513886CCV11	CCV	02/04/21 14:14	WI210121-2	25		24.7	mg/L	99	90	110			
WG513886CCB11	CCB	02/04/21 14:14				U	mg/L		-3	3			

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Thallium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514206													
WG514206ICV	ICV	02/11/21 14:39	MS210115-2	.05		.04868	mg/L	97	90	110			
WG514206ICB	ICB	02/11/21 14:41				U	mg/L		-0.00022	0.00022			
WG514206LFB	LFB	02/11/21 14:43	MS201228-2	.0501		.05052	mg/L	101	85	115			
WG514206CCV1	CCV	02/11/21 14:46	MS210122-2	.1002		.09331	mg/L	93	90	110			
WG514206CCB1	CCB	02/11/21 14:48				U	mg/L		-0.0003	0.0003			
L63972-03AS	AS	02/11/21 14:59	MS201228-2	.0501	U	.04896	mg/L	98	70	130			
L63972-03ASD	ASD	02/11/21 15:01	MS201228-2	.0501	U	.04786	mg/L	96	70	130	2	20	
WG514206CCV2	CCV	02/11/21 15:06	MS210122-2	.1002		.0947	mg/L	95	90	110			
WG514206CCB2	CCB	02/11/21 15:08				U	mg/L		-0.0003	0.0003			
WG514206CCV3	CCV	02/11/21 15:28	MS210122-2	.1002		.09391	mg/L	94	90	110			
WG514206CCB3	CCB	02/11/21 15:29				U	mg/L		-0.0003	0.0003			
WG514206CCV4	CCV	02/11/21 15:39	MS210122-2	.1002		.09142	mg/L	91	90	110			
WG514206CCB4	CCB	02/11/21 15:40				U	mg/L		-0.0003	0.0003			

Thallium, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514078													
WG514078ICV	ICV	02/10/21 8:49	MS210115-2	.05		.04939	mg/L	99	90	110			
WG514078ICB	ICB	02/10/21 8:51				U	mg/L		-0.0003	0.0003			
WG513920LRB	LRB	02/10/21 8:53				U	mg/L		-0.00022	0.00022			
WG513920LFB	LFB	02/10/21 8:55	MS201228-2	.0501		.04841	mg/L	97	85	115			
L63972-03LFM	LFM	02/10/21 9:05	MS201228-2	.0501	U	.04974	mg/L	99	70	130			
L63972-03LFMD	LFMD	02/10/21 9:07	MS201228-2	.0501	U	.051	mg/L	102	70	130	3	20	
WG514078CCV1	CCV	02/10/21 9:11	MS210122-2	.1002		.0996	mg/L	99	90	110			
WG514078CCB1	CCB	02/10/21 9:12				U	mg/L		-0.0003	0.0003			
WG514078CCV2	CCV	02/10/21 9:32	MS210122-2	.1002		.09843	mg/L	98	90	110			
WG514078CCB2	CCB	02/10/21 9:34				U	mg/L		-0.0003	0.0003			
WG514078CCV3	CCV	02/10/21 9:43	MS210122-2	.1002		.09716	mg/L	97	90	110			
WG514078CCB3	CCB	02/10/21 9:45				U	mg/L		-0.0003	0.0003			

Uranium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514206													
WG514206ICV	ICV	02/11/21 14:39	MS210115-2	.05		.04876	mg/L	98	90	110			
WG514206ICB	ICB	02/11/21 14:41				U	mg/L		-0.00022	0.00022			
WG514206LFB	LFB	02/11/21 14:43	MS201228-2	.05		.04948	mg/L	99	85	115			
WG514206CCV1	CCV	02/11/21 14:46	MS210122-2	.1		.09711	mg/L	97	90	110			
WG514206CCB1	CCB	02/11/21 14:48				U	mg/L		-0.0003	0.0003			
L63972-03AS	AS	02/11/21 14:59	MS201228-2	.05	.0322	.08122	mg/L	98	70	130			
L63972-03ASD	ASD	02/11/21 15:01	MS201228-2	.05	.0322	.08056	mg/L	97	70	130	1	20	
WG514206CCV2	CCV	02/11/21 15:06	MS210122-2	.1		.09596	mg/L	96	90	110			
WG514206CCB2	CCB	02/11/21 15:08				U	mg/L		-0.0003	0.0003			
WG514206CCV3	CCV	02/11/21 15:28	MS210122-2	.1		.09543	mg/L	95	90	110			
WG514206CCB3	CCB	02/11/21 15:29				U	mg/L		-0.0003	0.0003			
WG514206CCV4	CCV	02/11/21 15:39	MS210122-2	.1		.09237	mg/L	92	90	110			
WG514206CCB4	CCB	02/11/21 15:40				U	mg/L		-0.0003	0.0003			

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Uranium, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG514078													
WG514078ICV	ICV	02/10/21 8:49	MS210115-2	.05		.04968	mg/L	99	90	110			
WG514078ICB	ICB	02/10/21 8:51				U	mg/L		-0.0003	0.0003			
WG513920LRB	LRB	02/10/21 8:53				U	mg/L		-0.00022	0.00022			
WG513920LFB	LFB	02/10/21 8:55	MS201228-2	.05		.04775	mg/L	96	85	115			
L63972-03LFM	LFM	02/10/21 9:05	MS201228-2	.05	.0342	.08403	mg/L	100	70	130			
L63972-03LFMD	LFMD	02/10/21 9:07	MS201228-2	.05	.0342	.08608	mg/L	104	70	130	2	20	
WG514078CCV1	CCV	02/10/21 9:11	MS210122-2	.1		.0991	mg/L	99	90	110			
WG514078CCB1	CCB	02/10/21 9:12				U	mg/L		-0.0003	0.0003			
WG514078CCV2	CCV	02/10/21 9:32	MS210122-2	.1		.09734	mg/L	97	90	110			
WG514078CCB2	CCB	02/10/21 9:34				U	mg/L		-0.0003	0.0003			
WG514078CCV3	CCV	02/10/21 9:43	MS210122-2	.1		.09619	mg/L	96	90	110			
WG514078CCB3	CCB	02/10/21 9:45				U	mg/L		-0.0003	0.0003			

Zinc, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513799													
WG513799ICV	ICV	02/03/21 20:18	II210127-1	2		1.899	mg/L	95	95	105			
WG513799ICB	ICB	02/03/21 20:24				U	mg/L		-0.06	0.06			
WG513799PQV	PQV	02/03/21 20:27	II210104-2	.0502		.047	mg/L	94	70	130			
WG513799SIC	SIC	02/03/21 20:30	II210118-1	.1004		.101	mg/L	101	80	120			
WG513799LFB	LFB	02/03/21 20:36	II210129-2	.50075		.505	mg/L	101	85	115			
L63972-02AS	AS	02/03/21 20:58	II210129-2	.50075	U	.555	mg/L	111	85	115			
L63972-02ASD	ASD	02/03/21 21:01	II210129-2	.50075	U	.556	mg/L	111	85	115	0	20	
WG513799CCV1	CCV	02/03/21 21:07	II210125-2	1		1.034	mg/L	103	90	110			
WG513799CCB1	CCB	02/03/21 21:10				U	mg/L		-0.06	0.06			
L63987-02AS	AS	02/03/21 21:42	II210129-2	.50075	U	.547	mg/L	109	85	115			
WG513799CCV2	CCV	02/03/21 21:45	II210125-2	1		1.028	mg/L	103	90	110			
WG513799CCB2	CCB	02/03/21 21:48				U	mg/L		-0.06	0.06			
L63987-02ASD	ASD	02/03/21 21:51	II210129-2	.50075	U	.548	mg/L	109	85	115	0	20	
WG513799CCV3	CCV	02/03/21 22:08	II210125-2	1		1.012	mg/L	101	90	110			
WG513799CCB3	CCB	02/03/21 22:11				U	mg/L		-0.06	0.06			

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Zinc, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG513924													
WG513924ICV	ICV	02/06/21 0:51	II210119-2	2		1.899	mg/L	95	95	105			
WG513924ICB	ICB	02/06/21 0:57				U	mg/L		-0.06	0.06			
WG513924PQV	PQV	02/06/21 1:01	II210204-2	.0502		.042	mg/L	84	70	130			
WG513924SIC	SIC	02/06/21 1:04	II210119-1	.1004		.088	mg/L	88	80	120			
WG513885LRB	LRB	02/06/21 1:10				U	mg/L		-0.044	0.044			
WG513885LFB	LFB	02/06/21 1:14	II210129-2	.50075		.52	mg/L	104	85	115			
L63972-06LFM	LFM	02/06/21 1:37	II210129-2	.50075	U	.509	mg/L	102	70	130			
L63972-06LFMD	LFMD	02/06/21 1:40	II210129-2	.50075	U	.508	mg/L	101	70	130	0	20	
WG513924CCV1	CCV	02/06/21 1:43	II210204-3	1		.966	mg/L	97	90	110			
WG513924CCB1	CCB	02/06/21 1:46				U	mg/L		-0.06	0.06			
WG513924CCV2	CCV	02/06/21 2:22	II210204-3	1		.973	mg/L	97	90	110			
WG513924CCB2	CCB	02/06/21 2:25				U	mg/L		-0.06	0.06			
WG513924CCV3	CCV	02/06/21 2:48	II210204-3	1		.981	mg/L	98	90	110			
WG513924CCB3	CCB	02/06/21 2:51				U	mg/L		-0.06	0.06			

Ensero Solutions

ACZ Project ID: **L63972**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L63972-01	WG513971	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG513799	Iron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG514308	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG514259	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG513604	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
	WG513629	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG514206	Silver, dissolved	M200.8 ICP-MS	BE	Target analyte in continuing calibration blank (CCB) at or above the acceptance criteria. Target analyte was not detected in the sample [< MDL].
			M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG514078	Silver, total	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
L63972-02	WG513971	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG513799	Iron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG514308	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG514259	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG513604	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
	WG513629	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG514078	Silver, total	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
L63972-03	WG513971	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG513799	Iron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG514308	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG514259	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG513604	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
	WG513629	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG514078	Silver, total	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].

Ensero Solutions

ACZ Project ID: **L63972**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L63972-04	WG513971	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG513799	Iron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG514308	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG514259	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG513635	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
	WG513629	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
			M200.8 ICP-MS	BE	Target analyte in continuing calibration blank (CCB) at or above the acceptance criteria. Target analyte was not detected in the sample [< MDL].
	WG514206	Silver, dissolved	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
			M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
L63972-05	WG513971	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG513799	Iron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG514308	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG514259	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG513635	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
	WG513705	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
			M200.8 ICP-MS	BE	Target analyte in continuing calibration blank (CCB) at or above the acceptance criteria. Target analyte was not detected in the sample [< MDL].
	WG514206	Silver, dissolved	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
			M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].

Ensero Solutions

ACZ Project ID: **L63972**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L63972-06	WG513972	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG513799	Iron, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG514308	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG514259	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG513635	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
	WG513705	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG514078	Silver, total	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
L63972-07	WG513799	Calcium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG513972	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG513799	Magnesium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG514308	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG514259	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG513635	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
	WG513705	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG514078	Silver, total	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG513799	Sodium, dissolved	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-LLHG

Locator:

ACZ Sample ID: **L63972-01**

Date Sampled: 01/27/21 10:50

Date Received: 01/29/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	02/22/21 15:16		0.71			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	02/15/21 0:00		33	6.2	7.6	pCi/L	*	fdw
Gross Beta	02/15/21 0:00		13	3.3	6.7	pCi/L	*	fdw

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	02/09/21 0:15		0.57	0.12	0.11	pCi/L	*	amk

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	02/09/21 0:17		0.71	0.16	0.24	pCi/L	*	amk

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	02/20/21 14:19		-0.36	0.92	2.2	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-ARH

Locator:

ACZ Sample ID: **L63972-02**

Date Sampled: 01/27/21 11:28

Date Received: 01/29/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	02/22/21 15:16		0.75			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	02/15/21 0:00		34	6.3	7.1	pCi/L	*	fdw
Gross Beta	02/15/21 0:00		16	3.6	8.3	pCi/L	*	fdw

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	02/09/21 0:18		0.67	0.16	0.23	pCi/L	*	amk

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	02/09/21 0:20		0.75	0.13	0.07	pCi/L	*	amk

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	02/20/21 14:19		0.03	1	2.5	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-FBRG

Locator:

ACZ Sample ID: **L63972-03**

Date Sampled: 01/27/21 12:20

Date Received: 01/29/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	02/22/21 15:16		0.39			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	02/15/21 0:00		20	4.7	17	pCi/L	*	fdw
Gross Beta	02/15/21 0:00		7.8	3.2	18	pCi/L	*	fdw

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	02/09/21 0:21		0.62	0.14	0.12	pCi/L	*	amk

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	02/09/21 0:23		0.39	0.12	0.13	pCi/L	*	amk

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	02/12/21 15:22		0.14	0.91	2	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-BPL

Locator:

ACZ Sample ID: **L63972-04**

Date Sampled: 01/27/21 13:45

Date Received: 01/29/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	02/22/21 15:16		0.35			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	02/15/21 0:00		13	3.9	17	pCi/L	*	fdw
Gross Beta	02/15/21 0:00		9.5	3	19	pCi/L	*	fdw

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	02/09/21 0:24		0.4	0.12	0.11	pCi/L	*	amk

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	02/09/21 0:25		0.35	0.13	0.21	pCi/L	*	amk

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	02/20/21 14:19		0.37	0.84	2	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-NWRP

Locator:

ACZ Sample ID: **L63972-05**

Date Sampled: 01/27/21 14:42

Date Received: 01/29/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	02/22/21 15:16		0.28			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	02/15/21 0:00		4.7	2.6	9.1	pCi/L	*	fdw
Gross Beta	02/15/21 0:00		3.9	2.6	6.9	pCi/L	*	fdw

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	02/09/21 0:27		0.3	0.09	0.06	pCi/L	*	amk

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	02/09/21 0:28		0.28	0.12	0.12	pCi/L	*	amk

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	02/20/21 17:12		-0.23	1	2.5	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-AWD

Locator:

ACZ Sample ID: **L63972-06**

Date Sampled: 01/27/21 15:25

Date Received: 01/29/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	02/22/21 15:16		0.25			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	02/15/21 0:00		2.8	2	6.7	pCi/L	*	fdw
Gross Beta	02/15/21 0:00		5.9	2.8	5.2	pCi/L	*	fdw

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	02/09/21 0:30		0.29	0.12	0.22	pCi/L	*	amk

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	02/09/21 0:31		0.25	0.09	0.14	pCi/L	*	amk

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	02/20/21 17:12		0.37	0.83	2	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-18

Locator:

ACZ Sample ID: **L63972-07**

Date Sampled: 01/28/21 14:38

Date Received: 01/29/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	02/22/21 15:16		13			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	02/15/21 0:00		420	24	7.7	pCi/L	*	fdw
Gross Beta	02/15/21 0:00		170	8.3	9.4	pCi/L	*	fdw

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	02/09/21 0:33		4	0.24	0.08	pCi/L	*	amk

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	02/09/21 0:34		6.2	0.31	0.13	pCi/L	*	amk

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	02/20/21 17:12		6.5	1.2	2.3	pCi/L	*	cer

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Error(+/-)</i>	Calculated sample specific uncertainty
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>LCL</i>	Lower Control Limit, in % (except for LCSS, mg/Kg)
<i>LLD</i>	Calculated sample specific Lower Limit of Detection
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
<i>RER</i>	Relative Error Ratio, calculation used for Dup. QC taking into account the error factor.
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>UCL</i>	Upper Control Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>DUP</i>	Sample Duplicate	<i>MS/MSD</i>	Matrix Spike/Matrix Spike Duplicate
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBS</i>	Prep Blank - Soil
<i>LCSW</i>	Laboratory Control Sample - Water	<i>PBW</i>	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Matrix Spikes	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

H	Analysis exceeded method hold time.
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Method Prefix Reference

M	EPA methodology, including those under SDWA, CWA, and RCRA
SM	Standard Methods for the Examination of Water and Wastewater.
D	ASTM
RP	DOE
ESM	DOE/ESM

Comments

- (1) Solid matrices are reported on a dry weight basis.
- (2) Preparation method: "Method" indicates preparation defined in analytical method.
- (3) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alpha		M900.0										Units: pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG513830																
L64012-01DUP	DUP-RPD	02/15/21			12	3.4	1.5	14	3.5	1.3				15	20	
L64012-01MSA	MS	02/15/21	PCN62436	66.67	12	3.4	1.5	70	7.7	1.5	87	67	144			
L63971-01DUP	DUP-RER	02/15/21			4.8	2.4	6.5	3.5	2.1	11				0.41	2	
L63971-01DUP	DUP-RPD	02/15/21			4.8	2.4	6.5	3.5	2.1	11				31	20	RG
WG513830LCSWA	LCSW	02/15/21	PCN62436	66.67				67	5.7	0.9	101	67	144			
WG513830PBW	PBW	02/15/21						-2	0.47	0.84			1.68			

Beta		M900.0										Units: pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG513830																
L63971-01DUP	DUP-RER	02/15/21			3.2	2.6	5.2	4.8	2.8	11				0.42	2	
WG513830PBW	PBW	02/15/21						.72	1.7	1.8			3.6			
WG513830LCSWB	LCSW	02/15/21	RC200602-10	66.6				66	4.2	1.6	99	82	122			
L63971-01MSB	MS	02/15/21	RC200602-10	99.9	3.2	2.6	5.2	110	6.7	9	107	82	122			
L63971-01DUP	DUP-RPD	02/15/21			3.2	2.6	5.2	4.8	2.8	11				40	20	RG
L64012-01DUP	DUP-RPD	02/15/21			13	2.4	1.7	12	2.3	1.7				8	20	

Radium 226, dissolved		M903.1										Units: pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG513749																
WG513749PBW	PBW	02/09/21						.15	0.1	0.09			0.18			
WG513749LCSW	LCSW	02/09/21	PCN62879	20				25	0.68	0.14	125	43	148			
L63917-01DUP	DUP-RER	02/09/21			0.27	0.14	0.13	.16	0.11	0.1				0.62	2	
L63917-01DUP	DUP-RPD	02/09/21			0.27	0.14	0.13	.16	0.11	0.1				51	20	RG
L63917-02MS	MS	02/09/21	PCN62879	20	4.5	0.39	0.19	28	0.75	0.14	118	43	148			
L63940-01DUP	DUP-RPD	02/09/21			0.18	0.12	0.13	.11	0.08	0.1				48	20	RG
L63940-01DUP	DUP-RER	02/09/21			0.18	0.12	0.13	.11	0.08	0.1				0.48	2	

Ensero Solutions

ACZ Project ID: **L63972**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Radium 228, total

M904.0

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG513747																
L63873-01DUP	DUP-RER	02/11/21			1.6	1.4	3.6	-.11	1.1	2.7				0.96	2	
WG513747PBW	PBW	02/11/21						.23	0.83	2			4			
WG513747LCSW	LCSW	02/11/21	PCN61541	9.22				7.5	1.2	2	81	47	123			
L63873-01DUP	DUP-RPD	02/11/21			1.6	1.4	3.6	-.11	1.1	2.7				230	20	RG
L63873-03DUP	DUP-RER	02/12/21			0.21	0.86	2.2	.53	0.74	1.9				0.28	2	
L63873-03DUP	DUP-RPD	02/12/21			0.21	0.86	2.2	.53	0.74	1.9				86	20	RG
L63873-02MS	MS	02/12/21	PCN61541	9.22	0.85	0.86	2.2	7.5	1.1	1.8	72	47	123			
WG514016																
L63972-01DUP	DUP-RER	02/20/21			-0.36	0.92	2.2	-.28	0.85	1.9				0.06	2	
L63972-02MS	MS	02/20/21	PCN61541	9.2	0.03	1	2.5	8.4	1.1	1.9	91	47	123			
WG514016LCSW	LCSW	02/20/21	PCN61541	9.2				9.1	1.1	0.78	99	47	123			
WG514016PBW	PBW	02/20/21						-.07	0.36	0.38			0.76			
L63972-01DUP	DUP-RPD	02/20/21			-0.36	0.92	2.2	-.28	0.85	1.9				25	20	RG
L63995-01DUP	DUP-RPD	02/20/21			-0.2	0.7	1.6	.04	0.74	1.8				300	20	RG
L63995-01DUP	DUP-RER	02/20/21			-0.2	0.7	1.6	.04	0.74	1.8				0.24	2	

Ensero Solutions

ACZ Project ID: **L63972**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L63972-01	WG513830	Gross Alpha	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Gross Beta	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG513749	Radium 226, dissolved	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG514016	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L63972-02	WG513830	Gross Alpha	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Gross Beta	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG513749	Radium 226, dissolved	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG514016	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L63972-03	WG513830	Gross Alpha	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Gross Beta	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG513749	Radium 226, dissolved	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG513747	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L63972-04	WG513830	Gross Alpha	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Gross Beta	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG513749	Radium 226, dissolved	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG514016	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.

Ensero Solutions

ACZ Project ID: **L63972**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L63972-05	WG513830	Gross Alpha	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Gross Beta	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG513749	Radium 226, dissolved	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG514016	Radium 228, total	M904.0	DJ	Sample dilution required due to insufficient sample.
			M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L63972-06	WG513830	Gross Alpha	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Gross Beta	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG513749	Radium 226, dissolved	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG514016	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L63972-07	WG513830	Gross Alpha	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Gross Beta	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG513749	Radium 226, dissolved	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG514016	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.

Ensero Solutions

ACZ Project ID: **L63972**

No certification qualifiers associated with this analysis

Ensero Solutions
3100-PO205

ACZ Project ID: L63972
Date Received: 01/29/2021 10:26
Received By:
Date Printed: 2/1/2021

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?	☐	☐	☒
2) Is the Chain of Custody form or other directive shipping papers present?	☒	☐	☐
3) Does this project require special handling procedures such as CLP protocol?	☐	☒	☐
4) Are any samples NRC licensable material?	☐	☐	☒
5) If samples are received past hold time, proceed with requested short hold time analyses?	☒	☐	☐
6) Is the Chain of Custody form complete and accurate?	☒	☐	☐
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?	☒	☐	☐
A change was made in the Remarks section prior to ACZ custody.			
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Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	☒	☐	☐
9) Are all labels on containers and are they intact and legible?	☒	☐	☐
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	☒	☐	☐
11) For preserved bottle types, was the pH checked and within limits? ¹	☒	☐	☐
12) Is there sufficient sample volume to perform all requested work?	☒	☐	☐
13) Is the custody seal intact on all containers?	☐	☐	☒
14) Are samples that require zero headspace acceptable?	☐	☐	☒
15) Are all sample containers appropriate for analytical requirements?	☒	☐	☐
16) Is there an Hg-1631 trip blank present?	☐	☐	☒
17) Is there a VOA trip blank present?	☐	☐	☒
18) Were all samples received within hold time?	☒	☐	☐

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Ensero Solutions
3100-PO205

ACZ Project ID: L63972
Date Received: 01/29/2021 10:26
Received By:
Date Printed: 2/1/2021

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
7065	1.3	<=6.0	15	N/A
7070	3.8	<=6.0	15	N/A
6891	3.8	<=6.0	15	N/A
6700	1	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).



Laboratories, Inc.

L63972

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

CHAIN of CUSTODY

Report to:

Name: Braden Richards
Company: Ensero Solutions
E-mail: brichards@ensero.com

Address: 104-411 Downey Rd,
Saskatoon, SK S7N 4L8, Canada
Telephone: 306-978-3111

Copy of Report to:

Name: Evan Valencia
Company: Ensero Solutions

E-mail: evalencia@ensero.com
Telephone: 818-688-1839

Invoice to:

Name: Lori Simpson
Company: Ensero Solutions
E-mail: ap@ensero.com

Address: 131 E. Lincoln Ave Ste. 200
Fort Collins, CO 80524
Telephone: 970-632-2242

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses?

YES ☒
NO ☐

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring?

Yes ☐ No ☒

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: EV Sampler's Site Information State CO Zip code 80401 Time Zone MTN

*Sampler's Signature: *[Signature]*

*I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

ANALYSES REQUESTED (attach list or use quote number)

Quote #: Ensero-2020

PO#: 3100-PO205

Reporting state for compliance testing: CO

Check box if samples include NRC licensed material? ☐

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	TSS	Sample suite #1	Sample suite #2	COD	LLHG trip blank	Sample suite #3	TDS	
SW-LLHG	1/27/2021: 10:50	SW	9	☐	☐	☐	☐	☐	☒	☐	☐
SW-ARH	1/27/2021: 11:28	SW	9	☐	☐	☐	☐	☐	☒	☐	☐
SW-FBRG	1/27/2021: 12:20	SW	9	☐	☐	☐	☐	☐	☒	☐	☐
SW-BPL	1/27/2021: 13:45	SW	9	☐	☐	☐	☐	☐	☒	☐	☐
SW-NWRP	1/27/2021: 14:42	SW	9	☐	☐	☐	☐	☐	☒	☐	☐
SW-AWD	1/27/2021: 15:25	SW	9	☐	☐	☐	☐	☐	☒	☐	☐
MW-18	1/28/2021: 14:38	GW	9	☐	☐	☐	☐	☐	☒	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐

Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

This COC accounts for 4 coolers with 63 total containers.

This cooler has _____ containers from sample ID(s): SW-MW-18

Shipped 1/28/2021

Please also send reports to importer@alexco.ehsdata.com

COOLER 4/4

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:

DATE:TIME

RECEIVED BY:

DATE:TIME

Evan Valencia	1600 1/28/21	<i>[Signature]</i>	1/28/21 6:27

FRMAD050.06.14.14

White - Return with sample. Yellow - Retain for your records.

L63972 Chain of Custody